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Nurses' Attitudes, Knowledge and Beliefs Towards Individuals who Engage in Non-Suicidal Self-Injury

A thesis submitted in full fulfilment of the requirements for the degree of Doctor of Philosophy (PhD)

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Declaration

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis/project is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

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Abbreviations

AN: anorexia nervosa

AHPRA: Australian health practitioner regulation agency

ATDSHQ: attitude towards deliberate self-harm questionaire

BPD: Borderline Personality Disorder

CATT: crisis, assessment and treatment team

CPG: clinical practice guidelines

CSA: childhood sexual abuse

DID: dissociative identity disorder

DSH: deliberate self-harm

DSI: deliberate self-injury

DSP: deliberate self-poisoning

ECAT: emergency crisis and assessment team

ED: emergency department

EN: enrolled nurse

MHE: mental health educated nurse

Non-MHE: non-mental health educated nurse

NSSI: non-suicidal self-injury

OCD: obsessive compulsive disorder

PD: personality disorder

PET: psychiatric emergency team

PTSD: post-traumatic stress disorder

RANZCP: Royal Australian and New Zealand college of psychiatrists

RN: registered nurse

SH: self-harm

SHAS: self-harm antipathy scale

SI: self-injury

UK: United Kingdom

USA: United States of America

WHO: world health organisation

Abstract

The phenomenon of non-suicidal self-injury (NSSI) is an escalating and perplexing behaviour that has been explored in previous literature without definitive results. Self-injury in the absence of expressed suicidal intent is a greatly unexplored area within mental health nursing. Self-injury can be described as the deliberate destruction of the body without the intent to die, and is a distinct field needing to be seen separately from suicide and para-suicide. There is paucity in the literature regarding the attitudes of registered nurses (RN) employed outside of the emergency department, including mental health nurses and enrolled nurses' (EN) attitudes towards NSSI and this study aimed to fill the gap that exists in the literature.

The aim of this study was to investigate nurses' attitudes, knowledge and beliefs towards individuals who engaged in NSSI.

This was a mixed methods exploratory design study using a combination of two well adapted surveys, the Self-Harm Antipathy Scale (SHAS) and the Attitudes Towards Deliberate Self-Harm Questionnaire (ATDSHQ). Nurses who were either RNs or ENs, mental health educated or not, working in the area of mental health or emergency departments were recruited through a number of the professional nursing organisations. A total of 175 nurses completed the online questionnaire. At the end of the questionnaire participants were invited for a follow up phone interview lasting 45 to 90 minutes. There were 25 nurses interviewed. The audio recordings were transcribed and then the data analysed using thematic analysis.

The results from the quantitative data indicated that the attitudes of the nurses to NSSI were generally positive. There was a significant difference noted in the knowledge level between the mental health nurses who had greater knowledge

compared to those who were not mental health endorsed. Similarly, the qualitative results supported this difference but at the same time indicating that there was a lack of knowledge generally from this group of nurses to NSSI. The qualitative results also indicated that there was generally a negative attitude of this group of nurses to NSSI. In addition, there was a negative workplace culture to self-injury. There were a number of beliefs identified from the participants including that caring for NSSI was wasting their time and reference to a number of strategies, including specialling and no harm contracts which were not necessarily useful.

Much of the literature confers with these results on attitudes and knowledge with this study identifying the differences between the groups of nurses that were previously not identified. These results, however, extend much of what is in the literature on knowledge, attitudes and beliefs of nurses to NSSI. The findings from this study point to the need to increase the education of nurses at all levels in NSSI in order that they have a better understanding and therefore develop a more positive attitude to NSSI. Through this education, the negative culture that strongly exists towards NSSI can be turned around. Further research to assess the effectiveness of this increased education and compare to this study should be undertaken.

Chapter 1: Introduction

1.1 Introduction

This chapter provides an introduction and a definition of the modern phenomenon of non-suicidal self-injury (NSSI) which has become an international public health problem according to the World Health Organisation (2009). Self-inflicted injury is referred to in the literature as a conglomerate of various terms: 'self-harm' (SH), 'self-injury' (SI), 'deliberate self-harm' (DSH) 'deliberate self-injury' (DSI), 'self-mutilation', 'tissue cutting', 'attempted suicide', 'deliberate self-poisoning' (DSP) and 'parasuicide' (Australian and New Zealand College of Psychiatrists Clinical Practice Guidelines Team for Deliberate Self-harm, 2004). This thesis predominantly uses the terms NSSI and SI. This chapter will briefly present the history, the methods and incidence of self-injury and the response of nurses to individuals who self–injure. The chapter will identify the intent of the study which is to describe and explore Australian nurses' attitudes, knowledge, and beliefs towards individuals who engage in NSSI in Australia. The study's objectives, aims and rationale will be presented. Additionally, the organisation of the thesis will be outlined.

1.2 History of Self-injury

The phenomenon of NSSI is an escalating and perplexing behaviour that has been explored in previous literature without definitive results (Hawton, 2008; Hopkins, 2002; Mangnall & Yurkovick, 2008). Self-injury in the absence of expressed suicidal intent is a greatly unexplored area within mental health nursing (O'Donovan & Gijbels, 2006). Self-injury as described by Fontaine (2003) is the deliberate

destruction of the body without the intent to die, and is a distinct field needing to be seen separately from suicide and para-suicide. Self-injury needs to be understood as a meaningful behaviour displayed by the person in order to regulate emotions and stress (Bosman & van Meijel, 2008; McAllister, 2003a). As a complex psychological issue that has in the past been conceptualised as a maladaptive coping mechanism, self-injury is complex, and can be seen as a strategy for disconnection from the self and others.

Historically NSSI has been in existence for some time, however, it was not until Stengel (1962; 1969) wrote about NSSI as a survival mechanism that NSSI came of age. Although Menninger (1938) was the first to describe suicidal behaviour as self-injury, Stengel in the 1950s was the first to examine the social phenomena of suicide and NSSI (Stengel, 1962; 1969; Stengel & Cook, 1958). Favazza (1996; 1998) extended Stengel's work from the 1960s by further exploring the concept of NSSI and classifying this puzzling behaviour.

There is paucity in the literature regarding the attitudes of registered nurses employed outside of the ED, including mental health nurses and enrolled nurses' attitudes towards NSSI and this study aims to fill the current gap that exists in the literature. For the purpose of this thesis, all behaviours involving inflicting direct physical harm upon one's own body causing tissue damage without the intent to die as a consequence of such behaviour are considered NSSI (Simeon & Favazza, 2001). Additionally, the specific acts of self-injurious behaviours will be identified. The extent to which nurses provide optimal and non-judgemental care to individuals who self-injure is also discussed.

1.2.1 The phenomenon and definition of non-suicidal self-injury

An early example of NSSI was described in a case where a guilt-ridden widow enucleated both of her eyes in Europe in 1846 (Timofeyev, Sharff, Burns & Outterson, 2002). As reported in the media, in 1888 the artist Vincent Van Gogh cut off his ear lobe sending the severed ear to a prostitute. These are public demonstrations of NSSI, however, NSSI is generally a private activity. Many individuals who self-injure do so privately and neither seek, nor receive, medical treatment for their wounds. Others who seek out medical attention for their self-injury report being treated in uncaring ways by both the Emergency Department (ED) and mental health nurses, and this in turn only serves to keep the cycle of self-injury continuing (Pembroke, 1998). It is unhelpful to view self-injury as attention seeking behaviour as it is about expressing needs in an alternative manner. NSSI has been identified as the deliberate direct self-inflicted destruction of body tissue which is not socially sanctioned (Favazza, 1996; Gilman, 2012; Whitlock, 2009; Whitlock & Knox, 2007). Favazza (1998) is the seminal author on NSSI and he defines this behaviour as deliberate and direct destruction on the body or alteration of body tissue without conscious suicidal intent. This definition is also supported by Birch, Cole, Hunt, Edwards and Reamey (2011) and Yates (2004).

NSSI involves actions such as self-cutting or burning, in the absence of expressed suicidal intent (O'Donovan, 2007). Harris (2000) supports Fontain's (2003) argument that this form of self-harm as the deliberate destruction of the body without the intent to die is a distinct field needing to be seen separately from para-suicide. Bosman and van Meijel, (2008) and McAllister (2003a) indicated that NSSI needs to

be understood as a meaningful behaviour displayed by the person in order to regulate emotions and stress.

1.3 Risk of Suicide

Self-injurers who present to health services following an episode of self-injury, have elevated risks of further self-harm and indeed death by suicide (Crandall, Fullerton-Gleason, Agruero & LaValley, 2006; Gibb, Beautrias & Fergusson, 2005; Hawton, Zahl & Weatherall, 2003; Owens, Horrocks & House, 2002). Many clinicians and researchers support distinguishing between NSSI and a suicide attempt, and in fact view NSSI as a unique clinical syndrome (Favazza, 1996; Favazza & Rosenthal, 1993; Patterson & Kahan, 1983; Walsh, 2005). Researchers have found that individuals who engage in NSSI make a cognitive distinction between self-harming and attempting suicide (Favazza, 1996; Favazza & Conterio, 1989). Retrospectively, individuals who have self-injured, report having no suicidal thoughts or plans whilst, or prior to, self-injuring and do not intend to die at the time of their injuries (Favazza, 1998; Simeon & Favazza, 2001). For some individuals who engage in NSSI there is an implication that it is life-saving (Gratz & Roemer, 2008; Hawton, 2008). In fact many theories are now placing an emphasis on NSSI being related to a developmental and protective aspect of the self (Cornell Research Programme, 2011; Favazza, 1998; Gratz & Roemer, 2008). However, it has been reported in a British study by Owens and colleagues (2002) that following an episode of NSSI, further self-injury was increased by 15% within the following twelve months and 23% within the following four years.

There are contrasting views to this however. For instance, Muehlenkamp and Gutierrez (2004) report scarce empirical evidence to support the distinction between

NSSI without suicidal meaning and attempted (unsuccessful) suicidal behaviour. In addition, Pattison and Kahan (1983) propose that NSSI differs substantially from self-poisoning and argue that NSSI syndrome are behaviours that have low lethality and are repetitive in nature such as cutting, burning and hitting.

Self-injury and attempted suicide are terms used in the literature interchangeably despite the recognition over the past decade that they hold significantly different and often opposing meanings for the self-harmer (Favazza, 1998; 1996; Pembroke, 1991; 1994; 1995; 1996; 1998; 2000; 2006; Simpson, 2006). Such a basic misunderstanding that NSSI is a form of attempted suicide creates a challenge for nurses attempting to provide care for the self-harming person. In addition, the inability to consistently name and appreciate self-injury from suicidal intentions, results in the nurse having difficulty with this behaviour, and be unlikely to respond therapeutically toward the self-injurer (Simpson, 2006). NSSI is neither culturally sanctioned nor completed with suicidal intent but it nevertheless deserves a separate classification (Woldorf, 2005), and has important social consequences (Taylor & Cameron, 1998).

NSSI is a significant predictor of subsequent completed suicide (Patterson, Willington & Bogg, 2007). Furthermore, NSSI is a very important phenomenon as the behaviour is highly correlated with completed suicide. For NSSI individuals, the incidence of completed suicide is one hundred times greater than the normal population (World Health Organisation, 2009). Although self-injury and suicidality may be somewhat related, self-injury underpins the need to relieve or control intolerable emotional pain (Favazza, 1998).

1.4 Methods of Self Injuring

Self-injury is most commonly associated with intentionally carving or cutting the skin, sub-dermal tissue scratching with implements or the fingernail, excoriation[1], inserting objects, burning with cigarettes or heated objects, ripping out or pulling of the hair, eyebrows or eye lashes, swallowing toxic substances, punching walls, head banging, inserting objects, biting oneself, interfering with wound healing or breaking bones (Birch et al., 2011; Cornell Research Programme Outcomes, 2011; Favazza, 1996; 1998; Gregson, 2010; Klonsky, 2007a; NICE, 2004; O'Donovan, 2007; Walsh, 2005; Whitlock, 2009; Yates, 2004). Favazza and Conterio (1989) conducted a study in the United States of America (USA) on a large sample of non-suicidal self-injurers in terms of the methods they used to injure themselves and found that 72 % were cutting themselves, 35% were self-burning, 30% were self-hitting, 22% used interference with wound healing, 10% used trichotillomania[2] and 8% used bone breaking behaviours. Other forms of NSSI can range in seriousness from pathological skin picking, superficial scratches, moderate cuts, deep stab wounds, burns, swallowing objects to inserting objects (Bosman & van Meijel, 2008; Conterio & Lader, 1998). Cutting and scratching were the most common self-injuries undertaken by women whilst men reported cutting and burning (Borrill, Fox, Flynn & Roger, 2009). There is little understanding however, on whether males and females differ in choosing body sites to inflict injury upon (Whitlock et al., 2011).

Walsh (2005) argued that most individuals engaging in NSSI could be classified into specific groups based on the various characteristics of the type of NSSI,

[1] Skin picking disorder (DSMV, 2013).
[2] Pulling out eyebrows, eyelashes or hair follicles. An obsessive disorder involving hair pulling (DSMV, 2013)

which included whether the behaviour was episodic or repetitive. He further classified NSSI as indirect or direct (such as substance abuse versus cutting) whether the damage caused was low, moderate or high lethality. Skegg (2005) reported that the severity of the act of NSSI can vary from superficial wounds that heal, to wounds lasting in permanent disfigurement.

1.4.1 Incidence of NSSI

The incidence of NSSI is approximately 4% of the adult population worldwide with 21% of the clinical population engaging in NSSI, and a life-time prevalence among adolescents of 17% (Whitlock & Knox, 2007). The clinical population are individuals who are diagnosed with an identifiable mental illness according to the American Diagnostc Association, Diagnostic and Statistical Manual of Mental Disorders (DSM V) (2013). This manual is used to diagnose mental illness within the field of psychiatry. An unknown proportion of individuals who engage in NSSI do not present for treatment at the ED. However, NSSI is one of the most common reasons for attendance at the EDs worldwide and 40 % of individuals who self-injure are known to re-attend (Friedman et al., 2006). It is the tenth leading cause of presentation to an ED in Europe (NICE, 2004). Favazza and Conterio (1989) estimate the incidence of NSSI among those with a diagnosable mental illness to be 750 per 100,000 populations per year in the USA. NSSI occurs in non-clinical populations as well (Klonsky, Oltmanns & Turkheimer, 2003). Briere and Gil (1998) conducted a self-disclosure study and found that in the USA one out of 25 individuals in a non-clinical population engaged in NSSI. The conclusion reached was that 4% of the population self-injured (Briere & Gill, 1998).

The incidence of NSSI however, may well be underestimated as NSSI is well hidden in society. Statistics on the incidence and prevalence of NSSI are generally unreliable because NSSI remains a social taboo (Favazza, 1998). Many episodes of NSSI occur in private and are treated by the individual and do not reach the attention of the nurse (McAllister, 2003b). Hence, an accurate identification of NSSI is hindered by individuals who continue to avoid health care (McAllister, 2003b).

A UK study of Caucasian females suggested 13 to 25% of young adults have a history of at least one episode of self-injury (Rodham & Hawton, 2009). In the USA , NSSI is quite prevalent among adult populations (Briere & Gil, 1998; Klonsky et al., 2003), and this rate has been reported to rise to 16% among late adolescence in USA college student populations (Gratz, 2001; Gratz, Dukes Conrad & Roemer, 2002; Rulf Fountain, 2001) and ranges between 15.9 % to 46.5 % among high school students (Lloyd-Richardson, Perrine, Dierker & Kelley, 2007; Muehlenkamp & Gutierrez, 2004; Plener, Libal, Keller, Fegert, & Muehlenkamp, 2009). Fourteen per cent of young individuals who attended a university in the USA self-reported a history of NSSI (Klonsky et al., 2003). The estimated incidence of NSSI within a clinical population was between 4 and 20%, and for mental health inpatients the incidents of self-injury increased to 40% (Favazza, 1998; Kahan & Pattison, 1984; Rodham & Hawton, 2009). The literature also revealed that many individuals proceed to becoming chronic self-injurers commencing at the age of 13 to 16 (Whitlock, 2009; WHO, 2009). NSSI is common in Australia accounting for 5% of all presentations to the ED (Royal Australian and New Zealand College of Psycgiatrists (RANZCP), 2004). Self-injury accounts for 20% of all Australian hospital attendances and 7% of all admissions (McAllister, Moyle, Billet & Zimmer-Gembeck, 2009). In Australia

NSSI is estimated as 1.2 to 5% of all medical admissions to the ED and in New Zealand the estimate is 1.2% (RANZCP, 2004). Figures obtained through the Monash University Accident Research Centre, Victoria, Australia from July 1986 to June 1991 explored non-self-inflicted injuries and NSSI (Watt & Ozanne-Smith, 1994). The study was a retrospective epidemiological study of 56,209 15 to 24 year olds with injuries that were 1609 per 100,000. Of the group who presented with NSSI, there were 112 of 3907 presentations and this occurred within the 15 to 24 year old age group. There are no clear rates of NSSI in Australia however, NSSI remains a controversial issue that few clinicians understand. Rates of NSSI also vary with age whilst suicide compared with NSSI, increases with age and is highest amongst the young and middle-aged (Hjelmeland, Hawton, & Nordvik, 2002). Rates of NSSI also vary between countries and cultures although this has not been explored (Hjelmeland et al., 2002; RANZCP, 2004; Schmidtke, Bille-Brahe & De Leo, 1996).

1.5 Responses from Nursing Staff

The misunderstanding between the meanings of intentions to the self-injurer creates significant challenges for health professionals such as nurses who have the responsibility for providing supportive care (Simpson, 2006). Nurses' positive attitudes towards NSSI appeared in a study by Anderson (1997), although negative attitudes and responses from nursing staff towards the self-injurer have been reported by Gibb, Beautrais and Sturgenor (2010) and McHale and Felton (2010). These negative attitudes were thought to be due to the lack of education of nurses about NSSI (Hopkins, 2002; McAllister, 2002b; McCann et al., 2007; Patterson et al., 2007). Self-injurers' experience can often be a negative experience in attending EDs for treatment as the nurse is often perceived as expressing a negative attitude towards the

individual presenting with NSSI (Pembroke, 1998). NSSI is a private phenomenon, and individuals who engage in NSSI put their health at risk as they prefer not to seek out attention for their wounds in order not to be identified and exposed to the negative attitudes of staff.

Self-injury in the absence of expressed suicidal intent is an unexplored area within mental health nursing (O'Donovan & Gijbels, 2006). It is an unexplored area particularly within Australia (Aoun & Lavan, 1998). Most research on NSSI and nurses' attitudes towards this phenomenon has been completed in the UK (Long & Reid, 1996; Friedman et al., 2006; McLaughlin, 1994; O'Donovan, 2007) with a small number of studies in Australia (Bailey, 1994; McAllister et al., 2002b; McCann et al., 2006) and rather few studies in New Zealand, despite the rates of NSSI being very high per head of population in New Zealand (Ministry of Health: Wellington, 2009, cited in Gibb, Beautrais & Surgenor, 2010).

NSSI remains a controversial issue that few nurses understand. Terms such as 'deliberate' and 'intentional' have negative connotations when used with self-injury (Pembroke, 1998). Such terms imply that the individual could stop self-injuring if they wanted to, or that indeed they could exercise control over what they are doing but these are common misconceptions, as explained by a seminal author on NSSI (Arnold, 1994). Self-injuring is not an attempt by individuals at manipulation, but rather a manner of expressing extremely unbearable inner pain (Pembroke, 2000), a condition that many nurses misunderstand.

1.6 Justification for the Study

Emergency staff play a key role in the medical consequences of self-injuring individuals, with the rates of NSSI between 1to 9% of the ED caseload in Australia (Hamilton, Silburn, Zubrick, Cook & Acres, 1994). However, nurses' attitudes towards NSSI have not attracted in-depth research either in the international or in the Australian context. Most of the literature about NSSI comes from the UK and USA. In Australia some studies have explored emergency or acute care nurses' attitudes towards self-injury (McAllister, et al., 2002b; McCann et al., 2006; 2007). However, there is an absence of recent or current research in this area. In New Zealand, a study explored health care professionals' attitudes towards individuals who self-injured but not specifically nurses' attitudes (Beautrais et al., 2010). Further, none have investigated mental health nurses' (MHN), or enrolled nurses' (EN) attitudes regarding this behaviour.

This study is important because there is a paucity of literature both in Australia and internationally on nurses' attitudes, knowledge and beliefs towards individuals who present with NSSI. In particular, there is no real literary evidence in exploring MHN and EN attitudes towards self-injury. Consequently, these two groups of nurses have not previously been studied in Australia. Nurses' attitudes have been demonstrated to be negative towards the self-injurer in the few overseas studies and it is important to determine if similar attitudes towards NSSI exist in Australia. Further, this study is unique as it explores nurses employed both inside and outside of the ED, mental health nurses' and enrolled nurses' attitudes towards self-injury. General, mental health and enrolled nurses will potentially benefit from this study by enabling their education and thereby support effective engagement of nursing staff with NSSI

individuals. Courses focusing on post-registration training and curriculum development on NSSI can additionally be assisted by the findings from this study.

1.6.1 Study Aims

The aim of this study was to investigate nurses' attitudes, knowledge and beliefs towards individuals who engage in NSSI. This research will contribute to the international and national body of knowledge in relation to the attitudes, behaviour and knowledge of Australian mental health nurses (MHN), non mental health educated nurses (non MHE) and enrolled nurses (EN) towards the self-injurer presenting to health services.

1.7 Research Questions

This explorative descriptive mixed methods study examined the attitudes, knowledge and beliefs of nurses employed in emergency departments and adult acute mental health facilities in Australia towards individuals who engage in NSSI. The research questions guiding this study are:

1. What are the attitudes of nurses towards NSSI?

2. Is there a difference in attitudes between non-mental health educated (non-MHE) and mental health educated (MHE) registered nurses towards self-injurers who present to an emergency department or mental health facility?

3. Is there a difference in knowledge between non-MHE and MHE registered nurses (RNs) towards self-injurers?

4. What is the relationship between the years of experience of nurses and their attitudes towards self-injurers?

5. Is there a difference in the attitudes between enrolled nurses (ENs) and registered nurses (RNs) towards self-injuring individuals?

1.8 Organisation of the Thesis

The first chapter has provided a brief introduction to NSSI, and the context and study significance. Discussion of the background to NSSI will be explored in Chapter Two. Incidence of NSSI internationally and nationally will be included. Chapter Three will include a literature review. The literature review will present an examination of the literature regarding attitudes to NSSI by general and acute care nurses, community nurses, and mental health nurses. Methodology will be discussed in Chapter Four. This chapter will also examine the survey used by the researcher that adopted questions from the Attitudes Towards Deliberate Self-Harm Questionnaire (ADSHQ) developed by McAllister et al., (2002b) and from the Self-Harm Antipathy Scale (SHAS) developed by Patterson et al., (2007). Chapters Five and Six will describe quantitative and qualitative data results respectively. Discussion of results will be presented in Chapter Seven and include the major findings, strengths and limitations of the study, recommendations for practice, education and for policy development, and recommendations for future research. Finally, the study conclusion will complete chapter seven.

1.9 Summary

This chapter gave an overview of self-injury. The chapter provided an introduction to self-injurious behaviour, the history of self-injury, the phenomenon and definition of NSSI, the risk of suicide when an individual engages in repetitious self-injury, methods of self-injuring behaviour and the incidence of NSSI. Further the

chapter provided an introduction of the responses from nursing staff towards self-injury, justification for the study, study aims, research questions and the organisation of the thesis. The following chapter will provide a detailed understanding of the background of NSSI.

Chapter 2: Background to NSSI

2.1 Introduction

This chapter further discusses the definition of non-suicidal self-injury (NSSI) and differentiates NSSI from suicidal acts. The first part of the chapter identifies some commonly held myths about NSSI. This chapter then explores the definition and aetiology of NSSI in detail and examines rates of completed suicide and risk factors for self-injury. Further, the chapter discusses what NSSI is not, and how NSSI is used as a means of communicating high levels of distress.

Emotional regulation, disregulation and emotional inexpressivity are also discussed as these are essential characteristics in individuals who self-injure. In addition the chapter incorporates and is underpinned by essential consideration that NSSI is not a suicidal act but is in fact a mechanism in seeking to survive. The chapter will also explore the classification of NSSI, methods and characteristics of NSSI, repetitious NSSI and risk of completed suicide. Characteristics of service users, occurrence between rural and urban areas, age of self-injurers and the link with the diagnosis of borderline personality disorder (BPD) and NSSI will conclude the chapter.

2.2 Aetiology of NSSI

The cause of NSSI is somewhat difficult to determine due to the complexity of this phenomenon. The difficulty in describing and exploring exactly what NSSI is partly stems from the terms that are used to describe the behaviour and the confusion surrounding whether the act of deliberately injuring oneself is an act of attempted or incomplete suicide (Hicks & Hinck, 2008; Muelenkamp & Gutierrez, 2004). The

UK's National Institute for Clinical Excellence (NICE, 2004), states that any self-harm act irrespective of intent should not be differentiated from attempted suicide. However, Harris (2000) argued that NSSI is a distinct field separated from para-suicide and suicide attempts. Similarly, Simpson (2006) states that the act of NSSI and suicide are not representative of the same psychological process and thus require differing interventions (James, Bowers & Van Der Merwe, 2011). Since the meaning of NSSI is often misunderstood and in particular, the differences between NSSI and attempted suicide, this creates a challenge for nurses attempting to provide care for the self-harming person (Simpson, 2006). As such, the inability to consistently name and appreciate self-injury from suicidality may result in the nurse having difficulty with NSSI and be unlikely to respond to this behaviour therapeutically. It is within this context that NSSI can be viewed operationally as occurring in the absence of expressed suicidal intent (O'Donovan, 2007) and motivated by a need to cope with unbearable psychological distress or to regain emotional balance (Sutton, 2007).

2.2.1 Risk of NSSI and Completed Suicide

Self-injurers who present to health services following an episode of self-injury, have elevated risks of further self-harm and indeed death by suicide (Crandall, Fullerton-Gleason, Agruero & LaValley, 2006; Gibb etal., 2005; Hawton et al., 2003; Owens et al., 2002). It has been reported that following an episode of NSSI, further self-injury was increased by 15% within the following twelve months, and 23% within the following four years (Owens et al, 2002). In addition, self-injury is a significant predictor of subsequent completed suicide (Hatcher, Sharon & Collins 2009; Patterson et al., 2007; Suokas et al., 2008). One study suggested that individuals, particularly women, who had presented to an ED after an episode of NSSI who then went on to

complete suicide, are 15 to 23 times greater than individuals who had not self-injured previously (Cooper et al., 2005). This study concluded that individuals presenting at an ED after self-injuring have a high risk for completed suicide generally (Cooper et al., 2005). According to World Health Organisation (WHO, 2009) 55% to 85% of individuals who self-injure have made at least one suicide attempt. There is also a risk of unintentional suicide with severe NSSI (RANZCP, 2004).

Certainly there is evidence supporting the idea that a history of NSSI can be a strong predictor of future suicidal behaviours (Hatcher et al, 2009; Procter, 2005). It is important to note that individuals with a history of NSSI are at 9 times greater risk for suicidal thoughts, gestures, and attempts (Whitlock, 2009; WHO, 2009; Whitlock & Knox, 2007). Thompson (2008) further states that up to 2% of individuals who self-injure complete suicide within the following year and this increases to up to 7% of individuals who engage in NSSI completing suicide within the next nine years. Even if the NSSI occurred many years previously the risk for completed suicide remains potent (Jenkins et al., 2002). The incidence of suicide is far higher in males and is the second leading cause of death among 15 to 24 year olds in the UK (Haw et al., 2001; Hawton & Fagg, 1988; Hawton, Zahl & Weathall, 2011; Watson, 2000).

The one constant in NSSI however, is that the act is characterised typically with the intention opposite of suicide: that is, that the act of self-injuring is aimed at the individual self-integrating and preserving life (Whitlock, 2009). There is great debate in the literature regarding the link between NSSI and a suicide attempt, in that NSSI is not a suicidal attempt in itself nor a suicidal act. In contrast, the view that NSSI is not a predictor of later completed suicide is found to be inaccurate according to Runeson (2002). Further Runeson (2002) argues that NSSI and completed suicide

do not occur in different populations, and that this proposal is invalid. However, Hawton and colleagues (2011) state that although completed suicide is highly correlated with NSSI, particularly repetitive NSSI, the two behaviours are distinct. The strongest risk factor for completed suicide though is NSSI, and it is common for people unfamiliar with the concept of self-injury to assume that NSSI is either a suicide attempt or a gesture of suicide.

2.2.2 Incidence of NSSI within the Population

The incidence of NSSI within the general population especially amongst young people and undergraduate students is increasing. In addition to this the non-clinical population as a whole is increasing in the rates of NSSI (Hawton, 2008b). The incidence has increased from 10 to 25 attempts at NSSI for every suicide completion (Berlim, Perizzolo, Lejderman, Fleck & Joiner, 2007). Similarly, Jacobson and Gould (2007) reported an escalation in NSSI over recent years (1990 to 2000) from 13.0% to 23.2%. An increase in rates of NSSI was also indicated in a random study in a USA high school utilising an anonymous online questionnaire (Whitlock, Eckenrode & Silverman, 2006). This study found there was a lifetime prevalence of 17% among high school students. Rates of NSSI also vary between countries and cultures (RANNZCP, 2004; Schmidtke et al., 1996) and has rarely been explored (Hjelmeland et al., 2002). Predominantly, 25,000 adolescents present to the ED in England and Wales annually with NSSI (Hawton et al., 2000). Sixty-two per cent of NSSI presentations in Australia have a co-morbidity of mental illness (RANZCP, 2004).

The individual can inflict self-injury for weeks, months or years as reported within the Cornell Research Programme in the UK (2011). For many people who engage in NSSI within both clinical and non-clinical populations, the behaviour can be

cyclical rather than linear (Cornell Research Programme, 2011; Yates, 2004). Individuals who had engaged in NSSI in the past may not bring this information to the nurses' attention unless specifically asked. Many instances of NSSI result in minor or moderate injury and the individual may treat the injury themselves and not seek out medical assistance (Suyemoto, 1998). Self-injury is thoughtfully undertaken and is usually quite controlled. There is often a lack of suicidal intent with contained use of razor blades or glass shards which are favoured by self-injurers (Suyemoto, 1998).

Body areas injured commonly include wrists and forearms. The vast majority of self-injurers report an absence of pain whilst undertaking the act and this can be understood as dissipating intolerable anger, tension and dissociation that typically ends with self-injurious behaviour (Suyemoto, 1998). The true incidence of NSSI is therefore difficult to ascertain.

2.2.3 Gender and NSSI

Gender has been neglected in most past studies into the incidence of NSSI (Hjelmeland et al., 2002). NSSI worldwide is more common amongst young females (Hawton, Rodham & Evans, 2006; Whitlock et al., 2006; Hawton, Rodham, Evans & Weatherall, 2002; Schmidtke et al., 1996). However, because self-injury has been stereotyped as predominantly a behaviour that women undertake, men's experiences of NSSI have been marginalised (Borschmann, Hogg, Phillips & Moran, 2012). As a result, the literature is mixed when discussing gender incidence and as a whole there is no real single profile for a typical individual who intentionally self-injures (Whitlock et al., 2006; Whitlock, 2009; Whitlock et al., 2008). Some studies show NSSI to be more common amongst females whereas other studies suggest that self-injury is simply more visible among females than males (Whitlock & Knox, 2007). Other

studies show that males are equally likely to self-injure particularly among prison and non-clinical populations (Grazt, 2001; Klonsky et al., 2003).

However, males are over represented after episodes of NSSI for completed suicide (WHO, 2009). Bosman and van Meijel (2008) state that just as many men as women self-injure and that the reported incidence of more women than men in recent years engaging in this behaviour has been increasingly disproved. Although men and women treated within mental health inpatient services in the UK may have similar rates of NSSI (Hawton, Haw & Houston, 2002).

Although men who engage in NSSI are often underrepresented in ED presentations or their injuries are reclassified as they use more dangerous methods of self-injury than females, many males and females do not present at all for treatment (Hawton et al., 2000; Hawton et al., 2002) and consequently are not included within NSSI statistics. Females overall however, tend to display higher rates of NSSI (Hawton et al., 2002; Whitlock et al., 2006). A number of studies additionally show no difference in the numbers of males to females who engage in self-harm (Muehlenkamp & Gutierrez, 2004; Muehlenkamp & Gutierrez, 2007). Where males are shown to display high levels of NSSI, they generally display more reckless behaviour as an act of NSSI (Favazza, 1998). Further, Favazza and Conterio, (1988) and Suyemoto (1998), report that self-injurers are often under employed, and have a lower vocational achievement than those that do not self-injure despite equivalent education.

Additionally, as reported by the Cornell Research Programme (2011), there are differences in the types of NSSI between males and females with males exhibiting more aggressive acts, such as wall punching, and explaining the injury as having a

non-self-inflicted cause. It is also hypothesised that in non-clinical male populations

(that is males without a diagnosable mental illness according to the DSM V (American

Psychiatric Association, 2013), males are equally distributed in figures reporting NSSI

as much as females (Gratz, 2001), as men described their injuries as self-battery

(Whitlock, Muehlenkamp & Eckenrode, 2006; Whitlock & Knox, 2007; Whitlock et

al., 2006). Moran and colleagues (2010) further explains that men present with

different types of NSSI than women, and that their episodes of NSSI may present as

riskier, such as self-burning, reckless driving or sports injuries.

Paradoxically though, a UK study showed that NSSI is more common among

women but suicide is more common among males (Rodham, Hawton & Evans, 2005),

and this is especially the case in regions such as North America, Western Europe,

New Zealand and Australia (Gould, 2003). However, in a report by Borril and

colleagues (2009), gender differences were not found to be present. Men additionally

are not well received after an episode of NSSI especially in the ED. They are often

discouraged to disclose their distress as the male who intentionally self-injures often

feels that their behaviour is shameful and that they are undeserving of nursing and

medical care (Shaw & Hogg, 2004). It is therefore imperative to assist men to

understand and deal with their episodes of NSSI in a culture of acceptance and support

in order to alleviate the significant isolation and distress they feel after self-injuring

(Moran et al., 2010).

Males are more likely to turn their anger outward into aggression towards

others (Favazza, 1998). Thus males are more likely to end up in the prison system than

in mental health services. Additionally, many males end up in the prison system

because their poor impulse control influences their behaviour regarding other

situations. Simeon, Stanley, Frances, Mann, Winchel and Stanley (1992), found that the tendency to engage in NSSI was associated with impulsivity, chronic anger, somatic anxiety, high aggression and poor impulse control. Women tend to internalise the same feelings resulting in depression and self-blame. It should also be emphasised that males are more likely than females to turn to alcohol and other drugs to self-soothe. Males are, therefore, over represented in prison and forensic services as there are often associated risk factors such as alcohol and other drug issues, criminal history, antisocial personality disorders, and hopelessness than with females (Simeon et al., 1992).

Men tend to deny they have mental health issues or emotional difficulties, whilst females are more likely to seek out treatment from mental health services and as such make up a larger percentage than males in seeking mental health care (Conterio & Lader, 1998). Females are less likely to have a criminal history and have borderline personality traits than antisocial traits resulting in an over representation in mainstream and mental health services than males (Gough & Hawkins, 2000). This results in greater than 1 to 4% of males and 1 and 10% of young females engaging in self-injury in an Australian report (Queensland Health, 2006). While the concepts of anger, low self-esteem, reaction to abandonment and inability to self-soothe are common explanations of NSSI, a more complete understanding of the function of NSSI is needed in order to effectively investigate and treat this behaviour (Suyemoto, 1998).

2.2.4 Cultural Background and NSSI

Previous studies exploring ethnic and cultural differences in self-injury have focused on overdose and suicide attempts rather than NSSI per se (Borrill, Fox &

Roger, 2011). Little is reported in the literature about NSSI within non-majority racial and ethnic populations and those outside the dominant cultural groups. Ambiguity overall exists in the literature of NSSI and race and culture according to Whitlock, Eckenrode & Silverman (2006). However, Cooper, Murphy, Webb, Hawton, Bergen, Waters and Kapur (2010) report that health services are not culturally sensitive towards individuals from ethnic minorities who self-injure. Further, health services surveyed in their study offered less follow-up care and fewer referrals to mental health services after an individual from an ethic minority group presented after deliberately self-injuring (Cooper et al., 2010).

Aboriginal Australians have a much higher rate of NSSI than the total Australian population: 33% of males and 15% of females had deliberately self-injured (Procter, 2005). There also appears to be a higher incidence of suicide within indigenous native populations as a whole. Within the UK, young black women were more likely to engage in NSSI than individuals from other ethnic groups or men (Cooper et al., 2010). Cooper et al., (2010) hypothesised that women from these groups experienced more social difficulties or were more disillusioned with health services they had received, and so were reluctant to return for further general or mental health care. Individuals who self-harm also support this view (Pembroke, 2006; 2000; 1998; 1995; 1991).

Specific cultural factors are also concluded by Reece (2005) to be neglected in the literature. Reece (2005) further reports that South Indian women in the UK had a higher incidence than that commonly thought by other researchers. However, other factors such as how minority groups communicate distress and the perception of

health workers who work with minority groups may be obscuring these findings (Reece, 2005).

In a USA study, Gratz (2006) found that white students disclosed the highest reporting of NSSI, especially cutting, scratching and overdosing. However, Hawton and colleagues (2006) reported Asian youth as less likely to report NSSI to services in the USA compared to the opposite in UK studies. Further, Rodham and Hawton (2009) found that in a study of adolescents in USA the prevalence of NSSI was higher among Native American and Hispanic adolescents when compared to Black or White youths. These findings are consistent with UK findings where South Asian women displayed a higher incidence of NSSI than White individuals (Cooper et al., 2005). Rodham and Hawton (2009) concluded that the social experience of living within a minority group may be in itself an important factor when exploring rates of NSSI. They reported that this is so as minority groups feel they are often marginalised.

2.2.5 Religion and NSSI

Skegg (2006) reported stronger prohibitions against suicide and self-injury amongst some members of some religious groups, and that generally a religious affiliation was associated with fewer episodes of NSSI. Participants in Borrell and colleagues' (2011) study who defined themselves as belonging to a specific religious group, such as Christian, Muslim, Sikh or Hindu, were less likely to report episodes of NSSI than participants who had no religious affiliation. Individuals with no religious affiliation and white ethnicity were more likely to report repeated incidents of NSSI, particularly scratching and cutting the skin, than individuals from Hindu and Black backgrounds (Borrell et al., 2011). This study raises questions about the differential

disclosure of self-injury across gender and culture rather than the act of self-injury itself (Borrell et al., 2011).

2.2.6 Urban and Rural Differences

In the UK individuals residing in urban regions are more likely to suffer poor physical and mental health than rural populations and to have increased rates of mental illness (Harriss & Hawton, 2011). One study compared the rates of NSSI in rural and urban populations in individuals 15 years and older who presented to their local general hospital (Harriss & Hawton, 2011). The study found that urban rates of NSSI were substantially higher than rural rates in both males and females aged 15 to 65 years old and this relationship was sustained even when socioeconomic deprivation and social fragmentation were taken into account. As discussed, psychiatric disorders, especially depression, are known to be important risk factors for suicidal and non-suicidal self-injurious behaviour (Haw et al., 2001) and this has been shown to vary in prevalence between urban and rural areas. For both males and females rates of NSSI in urban areas were significantly higher than rates of NSSI in rural areas (Haw et al., 2001). This could be the result of the stressors of living in overpopulated and busy confines of the urban environment.

2.3 What Self-Injury Is and Is Not

An important factor in understanding what self-injury is and is not is to examine the motives or meaning of the self-injurious act (Hjelmeland et al., 2002; Rodham et al., 2004). All too often self-injury is labelled as suicidal in nature when in fact it is not. This results in poorly designed assessment and intervention. Most studies exploring suicidality compared to NSSI have focused on over-dosage of medication

and self-poisoning (Rodham et al, 2004) and this leads to relying on the motives or what the individual reports at the time. Non-suicidal intentional self-injury is often confused with suicide attempts however, most individuals who engage in self-injurious behaviours perceive self-injury as a means of self-preservation (Cornell Research Programme, 2011; Starr, 2004). Suicidal behaviour in the literature is reported operationally as distinguishing between lethality, repetition, and intent of ideation (Donaldson & Boergers, 2001; Guertin, Lloyd-Richardson, Spirito, Donaldson & Boergers, 2001).

Most research findings, according to Starr (2004), reported that there are distinctly different aetiologies and treatment recommendations between NSSI and suicide attempts (Ross & Heath, 2002). Suicide is statistically more prevalent within the middle-aged and male populations, whereas NSSI is more prevalent among young women (Cornell Research Programme, 2011; Favazza, 1998; 1996; Starr, 2004). However, most studies exploring NSSI support the notion that behaviours undertaken to avoid NSSI in order to cope with overwhelming negative feelings are undertaken to avoid suicide. A paradoxical feature of NSSI is that most individuals who practise NSSI report a relief of pain and of feeling something in the presence of nothing whilst they are dissociating. Research shows that individuals who engage in NSSI do so for a variety of reasons including coping with feelings of overwhelming distress (Pembroke, 1998; 1996; 1994). In addition to this, there are feelings around self-injury providing a means of communication (Pembroke, 1998; 1996; 1994). However, some individuals engaging in NSSI have also considered or previously attempted suicide (Whitlock, Eckenrode & Silvermen, 2006). Linehan (2006) and Linehan, Armstrong, Suarez and Heard (1991) seem to argue that any act of self-injury should be viewed as

an act of suicidal behaviour. However, infliction of self-injury without clear suicidal involvement should be viewed as non-suicidal injury and very distinct from that described by Linehan (2006). As such, Favazza and Conterio (1988) and Klonsky (2007a) suggested that skin cutting and wound healing interference are the most common methods of NSSI occurring between 70 to 90% of individuals who engage in NSSI, followed by banging of the fist or head and hitting oneself (21 to 44% respectively).

Individuals who engage in NSSI often speak about the act of self-injury facilitating a release of tension, frustration and distress and an attempt to reclaim a sense of control, even when they may also view the act as 'punishment' (Gregson, 2010; Walsh, 2005). The intentional tissue destruction has a purpose. The individual uses the pain as a means of relief from intense and overwhelming emotional pain (Hicks & Hinck, 2008). However, pain is not the only goal in cutting or inflicting injury: the sight of blood plays an enormous role in effectively restoring a sense of authenticity to the individual (Hicks & Hinck, 2008).

The act of NSSI is not a suicide attempt, although in the late 1930s the term self-mutilation in the literature was thought to be a substitute for completed suicide (Hicks & Hinck, 2008). A major difference between the two behaviours however, is that with NSSI the difference is that the individual wants to feel better and with attempted suicide the individual wants to die (Hicks & Hinck, 2008).

2.4 Myths about NSSI

Seven important myths about NSSI in part influence nurses' misunderstanding of self-injury. One common nurses' belief is that NSSI is not serious merely because it

is self-inflicted however, this does not negate the seriousness of self-harming behaviour (Jeffery & Warm, 2002). Another inaccurate misperception that nurses may hold is that self-injury is indicative of a personality disorder or in fact synonymous with BPD (Pembroke, 1996). Linehan and colleagues (1991) argue that NSSI is most commonly associated with BPD and suggest that severe NSSI is indeed a marker for disorders such as BPD. However, causes of self-injury cannot be diagnosed simply as being indicative of an underlying mental disorder (Jeffery & Warm, 2002). Further, it is difficult to accurately diagnose an individual who engages primarily in NSSI with any diagnosis within the DSM V (American Psychiatric Association, 2013). These individuals fulfil some of the criteria for a specific diagnosis, while differing markedly from others (Kahan & Pattison, 1984; Simpson, 1980).

Several reviews by Favazza (1992), Favazza and Rosenthal (1993) and Pattison and Kahan (1983) argue that self-injurious behaviours should be categorised as a primary criterion for a separate diagnosis of NSSI, deliberate self-harm or repetitive self-mutilation. Kahan and Pattison (1984) present an extensive argument for the independence of NSSI as a stand-alone diagnostic category. This includes the characteristic symptoms, course prevalence, population, predisposing factors, and differential diagnosis criteria of NSSI. This diagnosis would presumably be encompassed within impulse control disorders (Favazza, DeRosear, Conterio, 1999; Simeon et al., 1992).

Another myth is that NSSI is often portrayed as a female and a youth phenomenon. Furthermore, that the individual will 'grow out' of the behaviour when in fact this is not generally the case. In addition, NSSI is not a behavioural or developmental 'disorder' (Pembroke, 1994).

A myth seen especially in relation to nurses' misperceptions in the literature is that individuals who self-harm should be made to stop (42nd Street, 1999; Pembroke, 1998; 1996; 1994; Pembroke et al., 1996). Attempting to prevent the individual from self-injuring until they develop alternative means of coping with their feelings and emotions is potentially harmful, especially given that NSSI often has a protective factor for the individual; especially protection from completed suicide (Gratz, 2003; Palmer & Strevens, 2008; Reece, 2005). Indeed, it is when the self-injurer is not self-harming that suicide may occur.

Another important misconception is that self-injures have been sexually abused. The cause of distress that the individual who self-injurers feels on occasions can be linked to childhood abuse, especially emotional and/or childhood sexual abuse. However, this is not the case for all self-injurers (Arnold, 1997), and one should be cautious in linking the two (Reece, 2005). Arnold (1997) attempts to understand the nature and causes of self-injury and to enhance or dispel myths in the literature. Pembroke (1996) has also been actively engaged in this area particularly as a service user. Despite a number of individuals who engage in NSSI having a past history of childhood sexual abuse, some individuals do not (Arnold, 1995; 42nd Street, 1999).

Nurses' limited understanding of NSSI has resulted in many misconceptions that are detrimental to the health recovery of the self-injurer (Emerson, 2010). One of the most common misconceptions is that NSSI is an 'attention-seeking' act. In fact, the individual who engages in NSSI mostly engages in the behaviour alone and repetitively over many years. This is because NSSI can be a lifesaver rather than a life ending behaviour (Sutton, 2007). Viewing NSSI as a failed suicide attempt when in

fact NSSI is a method of coping with complex and raw feelings is also reported by service users (Emerson, 2010).

2.5 Associated Factors with NSSI

Trepal (2010) reports that some researchers have found that individuals who self-injure have childhood backgrounds of psychological, physical and/or sexual traumas, divorce, bullying, economic difficulties, neglect or loss. This is supported by a number of other researchers (Gregson, 2010; Simeon & Favazza, 2001; Favazza, 1996), whilst other researchers have reported that this is not the case (Walsh, 2006). Conceptualised as a maladjusted coping strategy, self-injury has also been addressed as a distorted form of communication such as in the form of manipulation (Favazza, 1996). It has been reported that self-injury can also be viewed as a disconnection strategy whereby the individual disconnects from the body and NSSI is used to regulate emotions and relieve tension (Favazza, 1998, 1996). When individuals feel an overwhelming inability to express and experience control over these emotions, they may experience some sense of relief through self-injuring.

A fundamental point in differentiating suicide from self-injury is intent. What was the individual intending to accomplish regarding this episode of self-injury? Some individuals are reasonably insightful and articulate regarding explanations for their self-injurious act and provide nurses with explanations of their behaviour that are clear and concise. However, more frequently, nurses find it difficult to elicit a clear articulation of intent as the individual is often emotionally overwhelmed and confused about their behaviour (Walsh, 2005). More commonly though, the individual is uncommitted, vague and ambiguous in their responses as to why they had engaged in self-injurious behaviour (Walsh, 2005).

A further point between suicide and NSSI is the frequency with which the two behaviours occur. Generally, NSSI occurs at much higher frequency rates than suicide attempts (Walsh, 2005). As such, the large majority of individuals who attempt suicide do not do so recurrently or frequently. Even those individuals who overdose as a form of NSSI know how much prescribed or over-the-counter medications they can ingest and still survive. One UK study reported much lower rates of mental illness and personality disorder in those who attempt suicide than those who complete suicide (Haw et al., 2001). Feelings of hopelessness and helplessness that characterise a suicidal individual's psyche do not generally characterise the psyche of an individual who engages in NSSI. Most self-injuring individuals find it reassuring that cutting, burning or some other form of NSSI is available whenever they need to reduce overwhelming distress (Walsh, 2005).

Current research suggests that shared risk factors for NSSI that seem to reinforce such negative coping mechanisms are history of child trauma, history of abuse (particularly sexual or emotional abuse), poor family communication, low family emotional warmth and perceived isolation (Dorko, 2009; Yates, 2004). Klonsky (2007b) and the Cornell Research Programme (2011) also report that NSSI is additionally a form of self-soothing and self-medicating. In clinical populations, NSSI is strongly linked to childhood abuse both sexual and/or emotional despite not appearing diagnostically with the DSM-IV (American Psychiatric Association, 1994) or DSM-V (American Psychiatric Association, 2013) as a separate and distinct category. It is more commonly associated with eating disorders (such as anorexia nervosa and bulimia), substance abuse, post-traumatic stress disorder, BPD, dissociative identity disorder (DID), depression and anxiety disorders (American

Psychaitric Association, 1994; American Psychiatric Association, 2013; Yates, 2004).

However, the lack of empirical research in non-clinical populations challenges the

assumption that a pre-existing mental health disorder must exist (Whitlock et al,

2006).

2.6 NSSI as a Means of Communication

The choice of coping strategy and expressive behaviour is related to how a

given behaviour meets a variety of needs (Suyemoto, 1998). However, when self-

injury has been used as a means of communication it can serve to distort relationships

(Trepal, 2010). This is particularly the case when family members or significant others

withdraw from the individual who is self-harming, or when others do not understand

the act or try to control the self-injurer's behaviour (Trepal, Wester & MacDonald,

2006). NSSI initially assists the individual to deal with their emotions but the

behaviour actually serves to weaken relational capacities, with the self-injurer

becoming more separated from others whilst halting their maturity and emotion

growth.

The overwhelming majority of individuals who engage in NSSI report they do

it to relieve painful feelings (Walsh, 2006). In fact the individual often harms in order

to diminish an excess of emotion (Brown, Comtois & Linehan, 2002; Conterio &

Lader, 1998; Favazza, 1987; Walsh, 2006). A minority of self-injurers report harming

themselves when feeling too little emotion (Walsh, 2006). Some individuals perceive

others to view their self-injurious behaviour as manipulative or attention seeking but

this is not the case as often an individual will attempt to hide their injuries and can

become emotionally withdrawn. On the other hand, there are a number of highly

functional and socially involved individuals who cope by utilising NSSI in order to function on a daily basis (Whitlock et al., 2006).

Thompson (2008) argues that the quality of nursing care the individual receives is likely to depend on how nurses understand the behaviour and on their own reactions towards NSSI. Powerful counter-transferences are elicited from nurses when individuals present after self-injuring and these are important to acknowledge. An Australian study by Slaven and Kisley (2002), reported that the nurse generally lacks confidence and experiences frustration when dealing with individuals who self-harm. Harris (2000) argues nurses generally felt helpless, frustrated and resentful towards individuals who self-injure and that these feelings had a negative impact on the nurse-patient relationship. The individual, on the other hand, felt misunderstood by the nurse and was labelled by nurses negatively (Harris, 2000).

Research by Hawton and colleagues (2000) showed that NSSI is undertaken by the individual to communicate despair, to escape, and to evoke sympathy, rather than the act of being manipulative. Whilst guidelines for the World Health Organisation (WHO, 2009) and clinical practice guidelines for the Royal Australian & New Zealand College of Psychiatrists (RANZCP, 2004) mention maladaptive responses to stress, a cry for help, and inability to deal with life problems. Borrill et al., (2009) identified participants scored higher on maladaptive coping strategies, such as rumination and difficulty identifying emotions, especially with repetitive self-injurers. Those who had difficulty identifying emotions used self-injury to minimise intolerable emotional arousal.

According to Reece (2005), simply viewing NSSI as part of a behavioural or personality disorder, such as BPD, is missing the meaning of the act and the self-

injurer's relationship to other incidents, such as sexual and abusive traumas. The challenge, this aurthor states, is to seek alternatives that are less damaging to the self-injurer in order to avoid possible risk of accidental death or suicide as a result of desperation (Reece, 2005). NSSI is, therefore, an outward attempt to control inward pain, and the meaning and acceptance of that message needs to be listened to. Indeed Warm, Murray and Fox (2002) found that sexual abuse was correlated to self-injurers' views of causation for their own acts of self-injury. Warm and colleagues (2002) further stated that service users additionally felt that self-injury was not solely a problem for women, or a failed suicide attempt or a sign of mental illness. Overwhelmingly the self-injuring individuals in this study felt that they should not be made to cease self-injuring or be treated as mental health patients (Warm et al., 2002).

2.7 Emotional Regulation and Disregulation

Although NSSI is a complex maladaptive behaviour, it is used by individuals as a means of self-preservation and emotional regulation (Starr, 2004). There is much evidence to support that those individuals who self-injure experience dissociation and depersonalisation stemming from experiences of past abuse (Linehan, Armstrong, Suarez, Allmon and Heard, 1991; Linehan et al., 2006). They also have difficulty with emotional regulation (Tapolaa, Lappalaien & Wahlström, 2010). In a study by Tapolaa and colleagues (2010), individuals who engaged in NSSI at a four month follow-up period were clearer about their emotions, better able to identify and label emotions, and better able to differentiate emotional states. Rao (2006) states that as an attempt to purge the body, self-injury is actually an attempt to establish a connection with the self. Most individuals utilise NSSI to evoke emotion when feeling emotionally numb or dissociated, whilst for others, NSSI is used as a means of self-

control, self-punishment, and/or distraction. Affect regulation theory can assist in providing some explanation in both clinical and non-clinical populations as to a method of coping with unwanted negative emotions. This relates to assisting people to regulate their affect or emotions. For individuals who engage in NSSI and then suicide, it may be due to heightened risk of suicidality when trauma or psychic distress overwhelms the individual's capacity to cope effectively (Whitlock & Knox, 2007).

Borrill and colleagues (2009) states that incidents of isolated NSSI are not correlated with emotional disregulation, however, maintenance of self-injury over time are. That is, individuals who do not develop emotional regulation skills to deal with difficult situations or intense emotions may continue harming themselves over time (Tepal, 2010). The suggestion that individuals have lower distress tolerance is also argued by other researchers (Walsh, 2006; Warm et al., 2003). A number of authors report how NSSI is used to regulate affect and many conclude that this is its primary purpose (Suyemoto, 1998). Self-injury may indeed serve to both express emotion and conflict to both the self and others as well as to exert a sense of control over emotions that threaten to overwhelm the individual (Suyemoto, 1998). As a result, NSSI may then be said to be used in conjunction with dissociation to regulate affect through distancing. Self-injury serves to express and externalise intolerable and overwhelming emotion to both the self-injurer and to others in the self-injurer's environment (Pembroke, 2000). The emotion is likely related to the perceived abandonment preceding the self-injurious behaviour.

The antecedents to NSSI are situational circumstances that cause the individual unbearable and overwhelming distress, and with impaired coping skills in which to alter or diffuse the situation, the individual then self-injures. In this way the individual

escapes from feelings, feels external rather than internal pain, assists with coping, and expresses anger toward the self. This allows the individual to eliminate dissociative feelings and feel alive, to gain control, to elicit help and to manipulate situations and others. The relief obtained by an act of NSSI is generally immediate. The importance of relief obtained by the act is almost palatable by the individual. The anger, rage and tension felt prior to the episode of NSSI then dissipate after self-injuring. As such, the self-injury is a dysfunctional act that expresses emotional pain. Self-injury may translate the feeling into an external injury that validates and expresses the emotion. Self-injury may also assist in regulating the overwhelming affect by creating a sense of control by turning the passive pain of abandonment into an active pain that can be controlled (Suyemoto, 1998).

Often the individual who engages in NSSI is not able to foresee the negative consequences of injuring behaviours. Sometimes cuts turn into scars and others may treat the individual differently (Skegg, 2005) especially when wearing clothing that reveals the scarred skin. Also individuals often keep NSSI behaviour a secret which can result in loneliness and isolation for the individual (Skegg, 2005).

2.7.1 Emotional Inexpressivity

Simeon and Favazza (2001), and Favazza (1996) argue that NSSI has been conceptualised as a learned strategy for coping with familial and traumatic circumstances. Reframed within Trepal's (2010) 'Relational Conceptualisation' as an individual develops within a family in which authentic expression of emotion is discouraged, the individual learns it is safer to disconnect with their feelings and their bodies through self-injury. Hence, NSSI is used to regulate intense negative emotion. Individuals utilise NSSI to calm down quickly as a form of self-soothing. They are

often hypersensitive to emotion and have difficulty managing negative feelings. Those who self-injure also report acting on impulse or an intention to self-injure do so to feel in control over their bodies and minds, to deal with overwhelming negative feelings and anxiety, to distract themselves, to relieve tension and internal pressure, and to communicate needs (Cornell Research Programme, 2011). However, although usually helpful to the individual in the short term, NSSI is likely to cause the individual to experience intense shame or a sense of lack of control over both their emotions and their bodies (Chapman, Gratz & Brown, 2006; Whitlock, 2009; Yates, 2004).

The dissociation model of NSSI is the only model that explicitly addresses the dissociation that is frequently observed in individuals who engage in NSSI (Cornell Research Programme, 2011). In this model, NSSI serves to regulate affect, but it focuses on the experiences of dissociation and the manner in which NSSI reacts with this defensive strategy for affect regulation. The function of NSSI as ending dissociation is often complicated by the fact that NSSI may itself cause dissociation (Simpson, 1980).

2.7.2 Seeking to Survive

Activities of NSSI serve to alleviate a number of functions, such as alleviation of negative affect, reduction of anxiety, impaired communication and control, release of anger and tension, distraction, and expression of emotional pain utilising physical pain and avoiding suicide (Borrell, Fox & Roger, 2011). Acts of NSSI carried out as a distress response are still widely misunderstood and carry significant stigma (Taylor, Hawton & Fortune, 2009). Despite a general co-morbidity of mental illness such as personality disorder and NSSI, research has found that individuals who self-injure do so in order to survive. Although NSSI may appear negative, the act is in fact positive

as it keeps the individual alive (LeFevre, 1996; Palmer & Strevens, 2008). When suicide is attempted or completed, the individual in general, according to Gratz (2003) and Klonsky (2007), arguably is not actively engaging in NSSI.

Self-injury is a distinctly different activity from a suicide attempt, but sometimes it is difficult to discern. Sometimes individuals who engage in NSSI do make suicide attempts (LeFevre, 1996). However, NSSI especially through superficial lacerations and burnings, is not the type of behaviour associated with suicidal behaviour per se. Paradoxically, NSSI is usually a life-sustaining act to prevent suicide, relieve anger, stress and inexpressible feelings, and to gain attention in the manner of seeking help (Conterio & Lader, 1998). Indeed, many self-injurers are critical of nurses who categorise the self-injurer as 'suicidal' (Conterio & Lader, 1998).

Individuals who self-injure reinforce that the behaviour is a survival strategy, a way in which to regain control, a secretive act, and a way in which to cope with distress and inner pain (Hadfield, Brown, Pembroke & Hayward, 2009). Service users are clear about what they want and need from a health service when in a crisis (Daw & Malzfeldt, 2010). They want empathy, knowledge of the functions of NSSI and their views to be taken seriously (Daw & Malzfeldt, 2010). Nurses are the first contact point for the individual presenting with self-injury, and the response the individual receives will determine whether they seek help in another crisis, seek attention for their wounds, or self-injure in private and not seek out help in the future (Daw & Malzfeldt, 2010).

2.7.3 Prevention

Cutting can be perceived as cleansing for the individual as often when the individual sees blood they report it as letting the bad out and also a sense of calm and self-soothing (Conterio & Lader, 1998; Favazza, 1996). It must be stated, however, that the motives behind NSSI are complex and numerous. Two prevention strategies mentioned in the literature are in particular no-harm contracts and special/one to one nursing observations. The no-harm contracts have been described as a collaborative written contract between the individual and the nurse, intended to prevent self-injury (O'Donovan, 2007). Overall however, these types of contracts do not prevent self-injury (O'Donovan, 2007). Further, specialling or one to one nursing is a specific procedure to prevent self-injury and suicide. Putting individuals who self-injure under continuous observation has been deemed to be an ineffective strategy after 72 hours and the practice has been described as dehumanising (Pembroke, 1991). It has been described as a crude method of ensuring patient safety that is custodial, defensive in nature and counterproductive leading to isolation (O'Donovan, 2007). Replacing these types of practices with structured activities may contribute to a reduction of self-injury. Recent debates in the literature have proposed the 'instillation of hope' as an alternative to specialling, recommending engagement and 'being with' the individual (O'Donovan, 2007).

2.8 Classifying Self-Injury

Simeon and Favazza (2001) presented a classification scheme that was an important advancement in the exploration of NSSI. The most widely accepted scheme was postulated by Favazza from 1987. The proposal was to divide NSSI into four

categories: stereotypic, major, compulsive, and impulsive (Simeon & Favazza, 2001). These categories discuss types of self-injury, associated tissue damage, biological correlates, rates and patterns of behaviour, and diagnostic categories associated with these behaviours. The first category of NSSI includes head banging, self-hitting, biting, picking and scratching as is seen in intellectually impaired and developmentally disabled populations (Simeon & Favazza, 2001). The second category refers to major self-injury and includes acts of self-harm that are associated with psychoses and result in considerable damage and are medium to high in potential lethality (Simeon & Favazza, 2001). Compulsive NSSI the third category presented by Simeon and Favazza (2001), refers to behaviours such as hair pulling/trichotillomania, skin picking (excoriation) and nail biting. Finally, NSSI that include self-inflicted skin cutting, burning, and hitting comprise the impulsive category (Simeon & Favazza, 2001). Self-inflicted cutting and burning and impulsive hitting are the focus of this thesis.

The distinctions between compulsive and impulsive behaviours are not always clear within this categorical scheme and Simeon and Favazza (2001) acknowledge this. It is also important to note here that individuals who engage in NSSI are fairly fluid in the behaviours they choose to utilise in relieving their stress and inner tensions, and may move from one behaviour to another at any given time. Sometimes the individual will self-injure episodically every few weeks or months. Alternatively, as stress increases in their lives, the individual may injure more frequently resembling the repetitive or compulsive self-injurer (Tantam & Husband, 2000; Walsh, 2005).

A further classification scheme for categorising NSSI is to examine direct compared to indirect self-injury. In this concept, designed by Pattison and Kahan

(1983), the concept of lethality and number of episodes is included. Direct self-injury refers to behaviour that involves tissue damage and for which the intent is generally unambiguous (Pattison & Kahan, 1983). These can involve multiple or single episodes. Indirect self-injury refers to behaviour in which the damage is generally accumulative rather than immediate and is very often ambiguous (Pattison & Kahan, 1983). These types of behaviours include substance abuse and eating disorders, and the individual tends to deny self-destructive intent (Pattison & Kahan, 1983).

Although cutting and burning is the most common form of NSSI, many individuals progress from cutting to burning, or from superficial scratching to deep lacerations (Conterio & Lader, 1998). According to Conterio and Lader (1998), 75% of individuals use more than one method of NSSI and some may use cutting instruments like razors, artist's knives, sharp glass, and nails to inflict their injury.

2.8.1 Repetitive NSSI

There is agreement in the literature that NSSI can and often is repetitive. Individuals who engage in self-injurious behaviours often cut or burn themselves more than once, and most individuals have multiple scars on their bodies (Starr, 2004; Tantam & Husband, 2009). In Australia, 16% of individuals repeat self-injuring behaviours (RANZCP CPG, 2004). In a UK study by Hawton and colleagues (2006), just over half of the young individuals surveyed engaged in repetitive NSSI. Moreover, greater than 4% engaged in multiple acts of self-injury (Hawton et al., 2006). This group is also known to be particularly at high risk of further self-injury within a year of the previous episode, and a further risk of completed suicide (Zahl & Hawton, 2004). The percentage of individuals who repeat acts of NSSI would be even higher if all individuals presented to health services for treatment and intervention, but

they do not (Hawton et al., 2006). Hawton and colleagues (2006) further argues that repeat self-injurers had lower scores than non-repeaters on measures of depression, hopelessness, anger, self-esteem, and displayed ineffective problem solving. Furthermore, Hawton and colleagues (2006) reports that episodes of NSSI are akin to an iceberg with only a small percentage of young people presenting to health services for assessment and intervention.

In a study by Birch and colleagues (2011), NSSI was revealed to be a somewhat resilient behaviour and was positively correlated with the level of restriction applied to the individual, and the denial of access to self-injury. Individuals who were engaged in NSSI were prevented from expressing themselves and exercising control over their behaviour which in turn increased episodes of NSSI (Jeffrey & Warm, 2002). In comparison, the National Institute for Health and Care Excellence (NICE, 2004) recommends a harm minimisation approach. This is where the individual is encouraged, through education, to only inflict minor injuries to themselves if they feel inclined to self-injure. Such an approach is achieved through educating the individual not to self-inflict deep laceration type injures. It could be argued that neither a restrictive or permissive harm minimisation approach to enable individuals who engage in NSSI provides the individual with psychological safety.

2.8.1 Forms of Repetitive NSSI

Many individuals who engage in NSSI do so in isolation and do not present for treatment. This is contrary to the common belief that self-injurers are simply attention-seeking. It is important to state, however, that although cutting is the most frequent form of NSSI among individuals who engage in repeated self-injury, the vast majority use multiple forms of inflicting injury (Whitlock, 2009). Borrill and colleagues (2009)

report that in their study, repetitive NSSI was more likely to be undertaken by undergraduate students, females, those with a past history of physical or emotional abuse and are bisexual or uncertain about their sexual identity.

2.9 Characteristics of Service Users who Self-Injure

Characteristics of individuals who engage in NSSI are diverse, and Whitlock (2009) states that here is no consistent characteristic of an individual who self-injures. Many who engage in this behaviour report overwhelming sadness, anxiety and emotional numbness (Cornell Research Programme, 2011). Individuals who engage in NSSI do not have control over their self-mutilating behaviour (Favazza, 1989; Starr, 2004). Women, prisoners and young people 15 to 25 are prominent among those who engage in NSSI (Hawton, 2008b; Hawton et al., 2006). Those who have received a mental health diagnosis (as not all individuals who engage in episodes of NSSI are mentally ill) include the following as being over represented: BPD, post-traumatic stress disorder (PTSD), anorexia nervosa (AN) and/or bulimia, depression, anxiety, obsessive-compulsive disorder (OCD), antisocial personality disorder, and a variety of psychotic disorders (Potter, 2003; Walsh, 2005). More than half of the individuals who injure themselves experience one or more mental illnesses, most commonly depressive disorders and BPD (Bosman & van Meijel, 2008; Potter, 2003).

Individuals who injure themselves often, but not always, report a history of childhood sexual abuse (CSA), violence, neglect, abandonment, or death of a close relative or friend (Gratz, 2003). Individuals struggle with negative self-esteem and low confidence in themselves and others, negative and distorted image of their bodies, difficulties expressing and regulating thought and feelings, underdeveloped skills in self-soothing, and an inability to solve personal problems leading to avoidance as

much as possible (Bosman & van Meijel, 2008). As a result, individuals who self-injure live with a great deal of tension, anxiety, sadness, hopelessness, insecurity and loneliness. Self-injurers also experience emotional distance towards others and their environment (Husband & Tantam, 2000). The functional nature of self-injury and alienation is not always recognised by nurses, and often nurses tend to view NSSI as a form of irrational and pathological behaviour arising from lack of control which should be stopped (Harris, 2000). This in turn leads to feelings of being misunderstood, frustration, humiliation and stigmatisation (Bosman & van Meijel, 2008). Subsequently the individual feels more alienated and this can increase further acts of NSSI (Harris, 2000).

Individuals want to feel that nurses show concern about their self-injury. The literature shows that these interactions and interventions are perceived to be helpful for the individuals who self-injure (Huband & Tantam, 2000; McAllister et al., 2002b). These interventions nurture hope, self-confidence and self-esteem (Bosman & van Meijel, 2008), and individuals indicate that these are important aspects of care if the individual engaging in NSSI is to decrease or even cease the behaviour.

2.9.1 Age and Self-Injury

A growing body of knowledge is developing that reveals increased occurrence of NSSI among adolescents and young people (Hawton et al., 2006; Whitlock, Muehlenkamp & Eckenrode, 2008). Rates of community based adolescents who engage in NSSI are estimated to occur at an incidence of 10 to 15% of the USA population (Gratz, 2001; Whitlock et al.,2006; Whitlock et al, 2008). Rates of NSSI are higher amongst adolescents and youth than among older populations and children (Rodham & Hawton, 2009). Young adults are proposed by Rodham and Hawton

(2009) to be at highest risk, and in highest incidence regarding acts of NSSI. They further reported 12% of university undergraduates in the UK to have engaged in NSSI. In a randomised control study in 2006 by Whitlock and colleagues, there was a lifetime prevalence of 17%.

Although it may be established that NSSI predominantly begins in adolescence, some studies have documented an age of onset as young as early to middle childhood for many individuals (Yates, 2004). Favazza (1996), Favazza and Conterio (1989), and Hawton and colleagues (2000) found that in fact a majority of adolescents who engaged in NSSI reported commencing this behaviour at approximately 14 years of age. Further, some reports indicate that for many younger groups of individuals who self-injure they form a culture or a group and for some self-injury individuals, they may form a clique.

2.9.2 Borderline Personality Disorder (BPD) and NSSI

The incidence of NSSI among non-clinical populations is increasing (Favazza, DeRosear & Conterio, 1986). However, rates within clinical populations, especially those individuals diagnosed within borderline personality disorder/spectrum (BPD) and cluster B traits[3] (American Psychaitric Association, 2013), are up to 75% higher and was at one time thought to be a symptom solely related to BPD (Linehan et al., 1991; Linehan et al., 2006; Trepal, 2010) but more recently Gratz (2003) has challenged this assumption. Although NSSI is seen in both men and women with various mental health diagnoses, the majority of those seen after self-injuring carry a diagnosis of BPD (Starr, 2004). BPD is described in the DSM-V (American

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[3] Meets some of the DSMV criteria for BPD but does not fulfil all criteria to meet a diagnosis of BPD (DSMV, 2013).

Psychaitric Association, 2013) as displaying a pervasive pattern of instability in relation to interpersonal relationships, poor self-image and marked impulsivity. It is seen as beginning in early adulthood and presenting in a variety of contexts. Although NSSI is a complex maladaptive behaviour, it is used by individuals as a means of self-preservation and emotional regulation (Starr, 2004).

The most preferred diagnostic mental health label in dealing with NSSI is BPD however, not all individuals who engage in NSSI have BPD, or are in fact mentally ill (McAllister, 2003b). Linking NSSI may indeed be ignoring other conditions and social situations and lead to inappropriate, ineffective treatments (Johnstone, 1997). Further, the diagnosis of BPD is often given to individuals who fail to meet any other criteria (DSM-V, 2013) other than NSSI, and leads to the individual often being judged harshly, feared, and constructed as chronic and not likely to change (Johnstone, 1997). In a UK study by Haw and colleagues (2001) however, 45.9% of participants who self-injured were diagnosed with BPD. They concluded that this had major implications for the assessment and management of both NSSI and BPD.

Individuals diagnosed with BPD may engage in NSSI but, this is not always the case (Potter, 2003). Causes of NSSI are unclear especially with individuals who experience symptom clusters leading to a diagnosis of BPD. The most commonly supported explanation for acts of NSSI in BPD support theories that such behaviour is a kind of ritualistic, symbolic expression, or tension relieving, sex, regression, existential statement involving manipulation, risk-taking, attention-seeking, retaliation, depression, tension relief, inappropriate communication, self-punishment and low self-esteem (Potter, 2003).

Linehan and colleagues (1991) estimates that approximately 11% of all mental health outpatients and 19% of individuals who are mental health inpatients meet the criteria for BPD. Individuals who self-injure are often given the diagnosis of BPD and these individuals exhibit high levels of chaotic behaviour and distress (Simpson, 2006). These individuals have a high rate of engaging in NSSI (Linehan et al., 1991) and the suicide rate for individuals with BPD is double that of individuals who do not engage in NSSI (Linehan et al, 2006). However, McAllister (2003b) noted that by viewing self-injury within a medical model, physical treatments are emphasised rather than important psychological and sociological factors which are often overlooked or minimised. The diagnosis of BPD in fact can shape staff attitudes and responses negatively when viewing NSSI and can link the behaviour to personality disorders (Linehan et al., 1991; McAllister, 2003b).

Personality disorder overall has an incidence of 10 to 14% in the general population (American Psychiatric Association, 2013). One of the more difficult concepts is that individuals who are diagnosed with NSSI are often also diagnosed with BPD, although self-injurious behaviours are present in some other personality disorders (Favazza, 1989). One study has focused on the relationship between NSSI and BPD (Potter, 2003). The significance of positive attitudes of nurses towards individuals with mental health problems and BPD has been discussed in the literature to some extent, but very little within Australia and Victoria (Purves & Sands, 2009). In Australia, concern about nurses' negative attitudes towards NSSI has been the focus of mental health commentary (Department of Human Services, 2002), and concluded there is a clearly identified need for improvement.

Attitudes towards individuals presenting with BPD tend to be negative and derogatory (McAllister et al., 2002a; 2002b). In an attempt to promote a more positive attitude towards these individuals Commons Treloar (2008a; 2008b) and Commons Treloar and Lewis (2008) gave access to education about BPD and this was demonstrated to have a significant effect on nurses' attitudes working in this area. After a two day education session on BPD, nurses expressed increased optimism, enthusiasm and positive feelings towards individuals with BPD. Further, there was a greater understanding of associated NSSI behaviours immediately after attending the education sessions as measured in this study by Commons Treloar (2009). However, over a six month period, the positive attitudes were not sustained, and Commons Treloar (2009) suggested that a regular programme of education about the nature of BPD and NSSI be maintained for nurses working in areas where the nurses will be dealing with individuals experiencing BPD and presenting with NSSI.

2.10 Summary

Self-injury is a vast and complex behaviour. Despite the fact that much has been written about NSSI per se, very little is understood about this behaviour. NSSI has only been explored since the 1950s. Further, despite the knowledge available about NSSI, why an individual self-injures is poorly understood and very little literature has commented on how nurses respond to NSSI. It is of interest to note that many professionals, including nurses, believe that NSSI is a symptom of an underlying illness or as part of a BPD illness. It was with hope that many lay writers who engaged in self-injury and some professionals, wanted NSSI to be classified as a disorder on its own (that is, a stand-alone disorder) in the DSM-V (2013). However, to date this is not the case.

The following chapter reviews the literature that focuses on nurses' attitudes, knowledge and beliefs towards self-injurious behaviours. A detailed search of the literature is displayed and literature exploring nurses attitudes within Australia and internationally are discussed. The attitudes of non-MHE RNs, MHE RNs, community nurses, forensic nurses, and ENs with and without MH endorsement and with or without medication endorsement towards NSSI are included.

Chapter 3: Literature Review

3.1 Introduction

This integrative review sought to examine works in peer reviewed journals on the topic of self-injury published between 2000 and 2013. Studies published before 2000 from seminal authors included Favazza (1998), Menninger (1938), Stengel (1962), and Stengel and Cook (1958) as well as prominent service users who have extensive articles published, such as Arnold (1994) and Pembroke (1998), were also included. References were generated from CINAHL, PubMed, Scopus and Proquest databases. Search criteria involved terms such as non-suicidal self-injury or self-harm; registered nurses' attitudes and NSSI; and enrolled nurses' attitudes and NSSI. They also included keywords such as enrolled nurses and self-injury and mental health nurses' and self-injury. The articles incorporated varying methodologies (case reports, survey studies, comparative studies and focus groups). The initial search yielded 38 international studies from the UK and USA and 9 Australian studies by four authors. The next stage of the review was to abstract data from the reported studies. Data were extracted in order of topic relevance, author and date, country of study, study design, intervention components, population and sample characteristics, measures of topic area, and study outcomes.

3.2 Results of Search Criteria

All participants included in these studies were either Registered General nurses (RNs) or Registered Mental Health Nurses (MHNs). No references were identified for NSSI and Enrolled Nurses (ENs). One study involved RNs employed in a forensic service. Three articles described community nurses' attitudes towards NSSI. Twelve articles explored mental health nurses attitudes towards NSSI, and 36 articles explored

general and acute nurses' attitudes towards NSSI. The search yielded a large number of articles on self-injury. A second search with reduced search criteria yielded 32 articles and included nurses' attitudes and beliefs towards self-injurious behaviour. Finally, a third search was then undertaken to include NSSI and Mental Health Nurses, NSSI and Community Nurses, and NSSI and Forensic Nurses.

Following this process the articles that met the inclusion criteria (n = 45) were retrieved in full and these articles were reviewed. Table 3.1 summarises the process of study retrieval and acceptance or rejection of identified articles. Table 3.2 identifies the extended search. Seventeen articles internationally and two articles in Australia were further excluded as the topic was a mix of medical and nursing staff. The third search identified 45 articles that met the search criteria internationally and included 9 that met the search criteria within Australia.

In general, despite the copious literature on self-injury itself, the literature displays a paucity regarding nurses (RNs' and ENs') attitudes towards NSSI post 2007. Most of the literature reports a tendency for nurses to feel negatively regarding NSSI (for example Hopkins, 2002); however, it also reported a need for further education at an undergraduate and post graduate level (McAllister et al., 2002a; McAllister et al., 2002b). The studies showing negative and punitive nurses attitudes towards NSSI included reports about treatment and care after self-injuring from service users themselves (Arnold, 1994; Harrison, 1995; Pembroke, 2000; 1998; 1991, 2000). Some studies revealed, however, positive attitudes and a depth of knowledge about NSSI from nurses, but this occurred less frequently than studies reporting negative attitudes. As community-based and forensic nurses were included in the present study, these articles were included in the literature review. However, there was

no literature generated on community mental health and forensic nurses' attitudes and knowledge in an Australian setting towards NSSI nor regarding ENs attitudes and knowledge within Australia or internationally.

Table 3.1.

Nurses' Attitudes, Knowledge and Beliefs towards NSSI 2000-2013 Search Summary

Data Base	Search Terms / Process					
	NSSI	AND Registered General Nurses	AND Attitudes towards NSSI	AND And Enrolled Nurses	Found to be Relevant to Study	After Removal of Duplicates
CINAHL	223	2	2	0	2	1
SCOPUS	2	0	0	0	0	0
PUBMED	310	10	8	0	12	5
PROQUEST	189	80	77	0	4	4
Reference Generated [4]	1214	60	34	0	29	22
					Total	32

[4] Reference lists of retrieved papers were manually scanned to identify other pertinent literature not located in the initial electronic searches. These articles were retrieved and assessed for currency and pertinence to the study interests.

Table 3.2.

Registered Nurses', Mental Health Nurses' and Community Nurses' Attitudes towards

NSSI 2000-2013 Search Summary

Data Base	Search Terms/Process				
	AND Mental Health Nurses	AND Community Nurses	AND Forensic Nurses	Found to be Relevant to Study	After Removal of Duplicates
CINAHL	4	0	0	3	3
SCOPUS	1	0	0	1	1
PUBMED	1	2	0	3	2
PROQUEST	2	1	0	3	2
Reference Generated	4	0	1	5	5
				Total	**13**

3.3 Discussion

The studies regarding the attitudes and knowledge of nurses towards NSSI are now discussed. The literature was explored to identify whether the studies supported positive attitudes by general and acute care, mental health, community-based and forensic nurses towards NSSI.

3.3.1 General and Acute Care Nurses' Attitudes Towards NSSI

The following reviews of the literature discuss specifically general nurses' attitudes, knowledge and beliefs about individuals who engage in NSSI. The studies discussed explore their design and conclusions.

3.3.1.1 International Research on General or Acute Care Registered Nurses Attitudes Towards NSSI

Many studies have demonstrated that when an individual within a hospital ward self-injures, staff often find the act difficult and distressing to manage as they often feel they are not providing adequate emotional support for the individual (Cook et al., 2004; Crawford, Thomas, Khan & Kulinskaya, 2007; Hopkins, 2002). However, self-injury is often an attempt to relieve pain and maintain connection to oneself and others (Gallop & Tully, 2003). Unfortunately, despite this, individuals who engage in self-injury are often seen in a negative light by nurses (Gallop & Tully, 2003). For example, 40 non-clinical and 102 nursing attendants in a general hospital attitudes setting were evaluated in a quantitative study using the Suicide Behaviour Attitude Questionnaire (SBAQ) before and after a 3 hour training session on suicide prevention (Berlim, Perizzolo, Lejderman, Fleck & Joiner, 2007). The study found that there was no significant difference for the majority of items pre- and post-training on negative attitudes. The staff essentially remained negative towards NSSI although the study was limited by a relatively small sample size.

NSSI can be reviewed as either positive or negative, a view not held by some (Gallop & Tully, 2003). Mackay and Barrowclough (2005) identified that optimism was a factor in positive nurse attitudes towards NSSI in the UK. Studies that report

negative attitudes towards self-injuring individuals point to the need for greater

education on the management of self-injury (Patterson et al., 2007). Hopkins (2002)

found that nurses' environments were not conducive to the management of NSSI and

that education around this phenomenon would be beneficial. Studies in which

researchers noted nurses' views are predominantly positive (Crawford et al., 2007)

also noted that education is an antecedent to more positive attitudes and increased

knowledge about NSSI (McHale & Felton, 2010).

Self-injury is an emotive issue and a recent report by the UK Royal College of

Psychiatrists (Daw & Malzfeldt, 2010) indicates that individuals who have self-injured

often feel let down by health services. Those who present at the ED are often put low

on the triage scale and this results in almost 43% of service users avoiding the ED due

to perceived negative emotional experiences there (Daw & Malzfeldt, 2010). Negative

attitudes towards self-injurers that nurses may hold, whether senior or otherwise, male

or female, is often assumed to be a view globally held by nurses. There are some

researchers who suggest nurses only have negative attitudes towards NSSI but this is a

severely limited viewpoint in the literature (McHale & Felton, 2010; Pembroke, 1998,

2000). A strong relationship exists between nurses' attitudes and negative beliefs

about NSSI (Hopkins, 2002) but, as this researcher will argue, the need for added

education about NSSI and more positive attitudes from nurses towards NSSI is

strongly emphasised (McAllister et al., 2002b). In comparison, as the link between

more education about NSSI and positive attitudinal shifts amongst nurses towards

self-injury is made at a local point, there is a need for a policy for education about

NSSI throughout nurse curriculums (McAllister et al., 2002b; McAllister & Estefan,

2002; McAllister, Moyle, Billet & Zimmer-Gembeck, 2009). In framing policy

development in this manner, there is some recognition of the role of the nurse to

improve attitudes, knowledge and beliefs about NSSI, but it remains one of

introduction and implementation of curriculum policy at both undergraduate and post-

graduate level.

Some research shows that individuals who have engaged in NSSI have

negative experiences because of the attitudes of healthcare professionals (McHale &

Felton, 2010). This can be viewed as a result of lack of education, lack of personal

confidence, clinical difficulties and the perception of the individual being able to

'control' their self-injuring behaviour (McHale & Felton, 2010). A literature review

by McHale and Felton (2010) highlighted the benefit of greater education and clinical

supervision in which attitudes towards NSSI can be improved. Their review generated

19 papers with 13 originating from the UK and 4 from Australia (McHale & Felton,

2010). They concluded that lack of education about NSSI and how to assist the

individual who presents with NSSI was the primary rationale for negative attitudes.

This was supported by all but one of the research papers cited in their study (McHale

& Felton, 2010). Education was seen to promote quality care through positive

attitudes as the understanding of NSSI was greater with such education (McHale &

Felton, 2010).

In support of research that recommends ongoing basic and post-basic

education in regard to effectively managing NSSI, several studies pointed to the

importance of post-registration education and training in order to improve attitudes to

NSSI among general nurses (Crawford, Geraghty, Street & Simonoff, 2003). A

questionnaire was completed by 126 nurses and doctors in a study with 42% of

participants demonstrating that they wanted greater education about NSSI in order to

manage this behaviour more effectively (Crawford et al., 2003). In a qualitative study by Wilstrand, Lindgren, Gilje and Olofsson (2007), six nurses in a Swedish hospital participated in narrative interviews exploring descriptions of caring for mental health patients who self-injure. Their study emphasised the importance of increased knowledge, support and supervision for nurses working with individuals who self-injured, not only in mental health care but generally, as well as the pivotal importance of research, education and development of practice (Wilstrand et al., 2007). In a UK study undertaken by Cooper and colleagues (2011), a sample of individuals who had recently self-injured and had been discharged from an ED were selected using purposive sampling (n = 11). For the study, clinical staff, including nurses from relevant areas, took part in both a focus group and individual interviews (n = 10) (Cooper et al., 2011). Most service users and ED staff identified the time directly after discharge as the time of greatest need. This study found that a proactive early and genuine intervention post discharge from the ED following an episode of self-injury was felt by most individuals to be an important aspect of care to manage the initial feelings of post discharge vulnerability (Cooper et al., 2011). The provision of an information pamphlet, a telephone call soon after discharge and letters offering continuity of contact were valued by service users (Cooper et al., 2011). However, the findings from this study may not be able to be generalised as the sample size was very small.

Optimism was argued by Mackay and Barrowclough (2005) to be a major factor in positive attitudes towards NSSI in a two-factor between-subjects design. Mackay and Barrowclough (2005) surveyed 89 ED nursing staff in the UK focusing on four hypothetical scenarios describing an individual who had presented after an

episode of NSSI. The nurses were asked to rate attributions for the cause of NSSI and their emotional responses. This strengthens the argument that some recognition of perceived needs for future training on NSSI exist (Mackay & Barrowclough, 2005; McHale & Felton, 2010). The study supported the view that the greater the nurse felt the individual could control their behaviour, the greater the negative effect of the nurse towards the individual and less optimism for the success of the nurses' input. Likewise, the less control the individual was perceived to have over their self-injuring behaviour, the more positive the nurses' attitudes were (Mackay & Barrowclough, 2005). Nurses' attitudes thus corresponded with belief in behavioural control. From these findings, it may be interpreted that nurses' attitudes to individuals who engage in NSSI corresponded with the nurses' belief that self-injuring behaviour was within the individual's control. These findings were particularly so with male RNs who had more negative attitudes and perceived less need for further training (Mackay & Barrowclough, 2005). This study is consistent with more recent studies (McAllister et al., 2002a; McAllister et al., 2002b).

In contrast to the Mackay and Barrowclough (2005) study, McCarthy and Gijbels (2010) found that ED nurses held positive attitudes towards individuals who presented after self-injuring. In this Irish study, a quantitative descriptive and correlational design was adopted with an amended version of McAllister and colleagues (2002b) questionnaire Attitudes Towards Deliberate Self-Harm Questionnaire (ATDSHQ) which yielded an 85% response rate (n = 68) (McCarthy & Gijbels, 2010). They found no correlation between total scores and gender, ED experience, and previous education on NSSI. Older nurses however, were found to be less positive about NSSI and age with length of experience in the ED producing a

positive trend which increased, peaked, and then decreased. No clear explanation for this however was offered by McCarthy and Gijbels (2010). This may be a result of cynicism secondary to burnout.

In an in-depth review of the literature, five themes emerged addressing nurses' attitudes towards NSSI (Emerson, 2010). Three core themes emerged from these five central topics: length of time as a nurse had a positive impact, nurses assume an association between NSSI and mental illness, and there is a need for nurses to receive current and ongoing training in the management of NSSI. Similar findings were found ffrom other studies in this area (Anderson & Standen, 2007; Emerson, 2010; Liggins & Hatcher, 2005; McCann et al., 2006; Patterson et al., 2007; Tay, Pariyasami & Ravindran, 2004). In a larger study (n = 117) ED nurses also in the UK, who attended to individuals who self-injured by laceration, were interviewed by questionnaire developed through focus group methodology (Friedman et al., 2006). Over half the nurses responded (53.8%) and although the nurses believed NSSI was an important problem, they felt unskilled in managing this behaviour. There was a general lack of understanding between knowledge of the relationship between self-laceration and both mental illness and risk of suicide (Friedman et al., 2006). Greater ED experience was additionally correlated with higher levels of anger towards individuals who self-injured, but overall the study concluded that ED nurses were eager for greater education about NSSI and its management. Importantly, case studies are presented as an education tool in a USA paper on NSSI as a method to demonstrate the variety of services individuals who engage in NSSI can access including: basic helping skills, self-education, confidentiality, referral making and the importance of creating

protocols for individuals after presentation to the medical service (Craigen, Cole & Milliken, 2010).

In consolidating the results of other studies, the importance of education was again emphasised in a small UK study which interviewed 14 RNs using grounded theory methodology (Reece, 2005). The three themes mentioned above by Reece (2005) were also found by Emerson (2010) indicating that nurses had a general lack of understanding of the meanings of self-laceration. For nurses to be effective in helping women who engaged in this behaviour to express distress in less damaging ways, more knowledge of NSSI was required (Reece, 2005). Favazza (1996) argued that it seemed like a battle for nurses who were attempting to stop the NSSI, leaving the nurse feeling a failure and the individual feeling immense despair. Speculation is such that these conflicts may explain why, at least in the UK, many self-injuring individuals reported difficult encounters with nurses (Harrison, 1995; Pembroke, 2002a; 1994). Additionally, in a very small ethnographic UK study of four acute care nurses on a general medical unit, included discussion of what it felt like to care for an individual after they had self-injured (Hopkins, 2002). Interestingly this paper was titled "But what about the really ill, poorly people" (Hopkins, 2002, p. 1).Three themes were elicited from the data: the perception that these individuals impede the quality of the business of the unit, nurses' difficulty in understanding the nature of NSSI and what led the individual to self-injure, and that the nurses did not feel they had the skill set to deal effectively with self-injurers. The study concluded that this left the nurse with a sense of frustration and helplessness, mirroring the feelings of this particular patient group (Hopkins, 2002). Negative treatment of the self-injurer was also described in a

case evaluation (Batty, 2002). In this study, the individual attending for treatment of self-injury was told they were wasting staff time in the ED (Batty, 2002).

Poor practice in the ED stems from the neglect of nurses in three key areas: staff support, staff education, and department protocols for the management of self-injurious behaviour (Pembroke, 2002a; Pembroke, 2002b). Simpson (2006) explored whether individuals who self-injured could be managed effectively within mainstream environments of a service. Simpson (2006) concluded that health services struggle to provide a response to self-injury that might be even close to being empathic or even engaging. Further, nurses for the most part have been unable to respond to the self-injurers' needs (Simpson, 2006). The inference of this paper was that negative nurse attitudes and service user accounts of negative treatment in the ED seemed to be widespread (Simpson, 2006). It is clear that in order to improve nurse attitudes towards the self-injurer, protocols and procedures for the effective management of NSSI are required.

Protocols for the management of NSSI was mentioned in a very small UK study of three individuals who engaged in self-injury and 15 self-selecting general nurses formed the main focus of the study using unstructured interviews (Smith, 2002). The study revealed that nurses as a group recognised the perception of individuals who had self-injured as often receiving negative care, though that this was changing (Smith, 2002). Nurses recognised that talking helped, but the individuals who self-injured felt that no help in overcoming the problem of NSSI was forthcoming (Smith, 2002). Further, the self-injurer felt that nurses generally did not understand their behaviour and nurses viewed them as failures (Smith, 2002).

The association between staff members' psychological distress and the attitudes they held toward individuals who had engaged in NSSI were examined in a quantitative study of 71 general hospital staff and 80 mental health staff in Finland (Suokas, Suominen & Lönnqvist, 2009). In contrast to previously discussed literature (Hopkins, 2002; McHale & Felton, 2010) some studies found that most staff members viewed NSSI positively and sympathetically (Suokas et al., 2009). A very small Northern Ireland study of eight participants using grounded theory in an exploration of staffs' perspectives on working with individuals who had engaged in NSSI was undertaken by Long and Jenkins (2010). They found that the relationship of trust between the staff member and the individual who self-injured, revealed that staff have a valuable role in the self-injurers' healing ability. Conversely, emergency nurses' reactions towards NSSI were explored in an Italian review paper in which most of the literature examined supported that emergency nurses were primarily educated to care for somatic crises and that the nurse is often ambivalent and negative towards the self-injurer (Pompili, Girardi, Ruberto, Kotzalidis & Tatarelli, 2005).

A UK literature review systematically explored service users attitudes towards clinical services following an episode of NSSI (Taylor et al., 2009). The study searched worldwide quantitative and qualitative studies, with 31 studies meeting the inclusion criteria (Taylor et al., 2009). The common themes in this study again support the predominant view of poor communication between service users and nurses and a perceived lack of knowledge about NSSI by nurses (Taylor et al., 2009). Many of the individuals who had self-injured felt that nurses failed to provide psychosocial assessments and access to after-care services (Taylor et al., 2005). Further, key factors that can improve emergency care to individuals who engaged in NSSI included better

education, and support and supervision for nurses in managing the individual with NSSI (Palmer & Strevens, 2008). Many individuals who had self-injured voiced concern regarding lack of mental health input in the ED and lack of collaboration between the mental health service and acute care teams (Palmer & Strevens, 2008). Although this current study explored nurses' attitudes and knowledge towards NSSI, service users' perceptions of care are clearly also important.

Exploring the attitudes of UK ED nurses toward individuals who had specifically self-lacerated, a group of 117 ED nurses with a response rate of 53.8% took part in a quantitative study using focus group methodology (Friedman et al., 2006). The nurses felt that self-laceration was an important phenomenon but felt unskilled in managing these individuals (Friedman et al., 2006). Additionally, nurses were unsure regarding the relationship between NSSI and mental illness and further a risk for suicide (Friedman et al., 2006). Nurses had previously little education regarding NSSI however, nurses who were more experienced in the ED, but had little formal education about NSSI, were found to be more negative and generally unhelpful towards the self-injurer (Friedman et al., 2006). As with studies previously mentioned, most of the ED staff interviewed wanted more education about NSSI and for a greater proportion of self-injurers to be seen by the mental health nurses (Friedman et al., 2006). The study concluded that unfavourable attitudes of nurses towards self-injury are likely to adversely affect the quality of care delivered to this vulnerable group of individuals (Friedman et al., 2006).

3.3.1.2 Australian Research on General or Acute Care Registered Nurses'

Attitudes Towards NSSI

Despite the ED being the most common service for self-injurers, as in the international literature, Australian nurses generally have no special education in the management of NSSI (McAllister et al., 2009). Knowledge, professional identity and clinical reasoning were all outcome measures of a study that aimed to improve understanding of emergency nurses' helping skills in dealing with NSSI (McAlllister et al., 2009). Twenty-eight emergency nurses completed this educational activity in this Australian study and the outcomes noted that there was an improvement in nurses' ability to consider the individual's psychosocial needs following presentation at the ED for NSSI (McAllister et al., 2009). The study concluded that this was likely to improve the quality of care delivered by nurses towards individuals who self-harmed (McAllister et al., 2009). In a previous Australian study, McAllister, Billet, Moyle and Zimmer-Gembeck (2009) evaluated the effectiveness of a solution-focused education intervention in improving emergency nurses' responses towards individuals who presented to the ED after an episode of self-injury. Emergency nurses commonly report a lack of education and training in the management of self-injury (McAllister et al., 2009). The study used a mixed methods pretest-posttest design with 36 ED nurses. The intervention showed that the education package for enabling nurses to manage NSSI was successful (McAllister et al., 2009). This study again supports the need for education, procedural instructions and protocols in order to improve nursing outcomes when intervening with an individual after self-injury.

Conversely, again emphasising negative attitudes towards self-injury by nurses, Australian ED nurses felt ill-prepared, lacked clear frameworks for practice

and reported feeling exposed when dealing with managing versus caring, and diagnosing versus understanding (McAllister et al., 2009). Additionally, nurses supported this response that they had no formal or informal education about NSSI and over 20% claimed there were no practice guidelines in their department for the appropriate management of NSSI (McCann et al., 2006). Nurses as a whole should be supported with more education regarding dealing with NSSI however, some nurses report more positive attitudes towards the overall management of NSSI as they age. This view is supported by McCann and colleagues (2006), who contested that older and more experienced nurses held more supportive views and revealed more positive attitudes towards NSSI than less experienced nurses. This was evident without specific education about NSSI. This is a view not supported by McCarthy and Gijbels (2010) who, as stated earlier, found older nurses to be less positive about NSSI, withd age and length of experience in the ED producing a positive trend which increased, peaked, and then decreased. However, the McCann et al. (2006) study was a small quantitative study of 43 RNs in the ED of a major hospital in Australia. McCann and colleagues (2006) concluded, as did McAllister and colleagues (2002b), that the importance of providing post registration education and preparation of ED nurses, mentoring and incorporating practice guidelines was paramount in improving nurse attitudes towards NSSI.

Reinforcing the view that educational programmes have been shown to have a positive response in nurses' attitudes towards NSSI, one study of 36 ED nurses aimed to improve understanding of NSSI though a solution-focused skill-set including improving knowledge, professional identity and clinical reasoning (McAllister et al., 2009). This 'think aloud' procedure was explored in order to consider the service

users' psychosocial needs following intervention after self-injury (McAllister et al., 2009). This led to an improvement in the quality of nursing care towards individuals who presented to the ED with mental health issues and NSSI (McAllister et al., 2009). Despite the small sample, the qualitative results revealed a positive attitudinal shift and an increase in understanding of self-injury and the nurse's belief of ability to empower the service user (McAllister et al., 2009).

McAllister and colleeagues (2002a) reported that individuals who present to the ED after an episode of NSSI often report that they are dissatisfied with the care provided and that the nurse often feels ambivalent, helpless or frustrated when involved in NSSI nursing care. In order to formally test this notion, a scale was developed (Attitudes Towards Deliberate Self-Harm Questionnaire – ATDSHQ) and was piloted with 20 ED nurses, and then undertaken with 1008 nurses employed in 23 major public and 14 major private EDs in Queensland (McAllister et al., 2002b). There was a 35% response rate (McAllister et al., 2002b). These authors found generally a negative attitude towards the self-injuring individual. Further, there were correlations between nurses employed in smaller work settings rather than larger EDs and the nurse's score for empathic approach on the ATDSHQ (the smaller work settings being more positive to NSSI than larger EDs). Conclusions reached included that there was a need for continuing post-registration activities in order to address negative attitudes and provide strategies and informed practice (McAllister et al., 2002a). A positive approach is a respectful approach for example, understanding, support, optimism and hope for the self-injuring individual by the ED nurse (McAllister, 2003b). Aspects of this scale were seen as valuable by this researcher and used in conjunction with the Self-Harm Antipathy Scale - SHAS (Patterson et al.,

2007) in this current study in order to obtain a current understanding of nurses'

attitudes to NSSI. This would also enable the researcher to support or argue against

the findings of these important Australian studies.

Further studies reveal inadequate education at undergraduate and post-graduate

levels (McAllister et al., 2002b). A study of 352 nurses employed in Queensland EDs,

using the risk assessment questionnaire that was developed, found that nurses

frequently responded to individuals who engaged in NSSI but that most nurses had no

formal education in this area (McAllister et al., 2002b). Further, this study revealed

that specific knowledge and skill deficits resulted in the diminished likelihood of

adequate care by nurses towards the self-injurer (McAllister et al., 2002b). Recent

research in Queensland surveying nurses' attitudes and responses to NSSI displayed a

lack of solid understanding of the nature of NSSI and inability to respond to

individuals who self-injure therapeutically (McAllister, 2003b). Educational principles

and strategies were offered successfully skilling up nurses in a course at an Australian

university exploring contemporary theories and practices to improve the

understanding of the nurses towards the individual who engages in NSSI (McAllister

& Estefan, 2002). The course was entitled 'Self-harm and therapeutic responses' and

explored contemporary theories and practices that aimed to improve nurses'

understanding and responses to individuals who self-injure (McAllister & Estefan,

2002). The course was measured using a six-category intervention analysis:

prescriptive, informative, confronting, catalytic, cathartic and supportive (McAllister

& Estefan, 2002). The curriculum shaped nursing practice and developed healthier

clinical and social environments for such individuals. It is anticipated that the current

study will be able to determine if there continues to be a need for more education to

RNs and ENs on NSSI and support the studies by McAllister and colleagues in a number of studies (2003; McAllister et al., 2002a; McAllister et al.,2002b).

A lack of structure in the management of NSSI in a qualitative survey that involved 13 nurses in a regional setting emphasised deficiencies and inconsistencies in the management of NSSI (Slaven & Kisely, 2002). Suggestion to improve the management of NSSI included better communication between services, support for nurses managing NSSI, use of a simple risk assessment tool, the development of a nurse liaison role and a multidisciplinary planning group (Slaven & Kisley, 2002). It is clear that the management of NSSI needs to be improved. Slaven and Kisely (2002) found a lack of protocols, policies and procedures were not in place for the adequate management of NSSI and that such guidelines have not been adequately provided for nurses so far. Conversely, McCann et al. (2006) found that in an explorative study investigating ED nurses, despite a lack of protocols surrounding the management of NSSI, nurses' attitudes were generally not biased against the self-injurer. It was found that overall nurses had sympathetic attitudes towards the self-injurer and did not discriminate against this group of individuals in either triage or care decisions (McCann et al., 2007).

Positive attitudes towards NSSI were reinforced in an additional Australian study by Commons Treloar and Lewis (2008a; 2008b), whereby the attitudes of mental health nurses towards self-injury and BPD were investigated. This study used a purpose designed questionnaire and an assessment tool to quantify attitudinal levels in 140 mental health professionals in New Zealand and Australia (Commons Treloar & Lewis, 2008a). Significant differences were found and the strongest predictor of negative attitudes was whether the clinician worked in the ED or in mental health.

This was followed by years of experience and specific training in BPD and attitudes towards NSSI. More experience working with BPD and female gender correlated with a more positive trend (Commons Treloar & Lewis, 2008a; 2008b). Table 3.3 provides an overview of literature for attitudes of Australian ED and non-mental health educated RNs towards NSSI from 2000 to 2014.

Safety nets have been developed in the management of NSSI in Australia. For instance, individuals who present to Eastern Health Victoria with thoughts or acts of NSSI have access to a tailor designed Brief Intervention Clinic (BIC) (Eastern Health, 2012). This service prevents individuals who self-injure from 'falling through the cracks' in services especially when they are triaged as low to medium acuity (Eastern Health, 2012). In contrast, despite the need, there do not seem to be similar clinics in other health areas such as Monash Health, Western Health and Northern Health in Victoria. This programme offers tailored support in a Victorian-first initiative and assists individuals at risk of self-injury secondary to relationship breakdowns and situational crises (Eastern Health, 2012). Eastern Health moreover, provides a specific programme for individuals who experience BPD and self-injure frequently which is called 'SPECTRUM'. SPECTRUM is not an acronym but a word that the organisation uses to highlight the range of presentations the individual who experiences BPD and/or self-injury displays. This is a service whereby nurses have support around NSSI: clinical supervision, case reviews, education, debriefing, policies, protocols and procedures.

Table 3.3. *Literature Results for ED and General RNs in Australia 2000-2014*

Author	Year	Number of Participants	Type of Nurse	Study Methodology	Results	Recommendations of Study
Commons Treloar & Lewis	2008	140	Mental Health RNs	Quantitative Purpose designed Questionnaire	The more Experienced the RN the More Positive the Attitude	Ongoing Education about NSSI
McAllister, Creedy, Moyle & Farrugia	2002a	352	ED RNs	Quantitative	Some negativity expressed towards NSSI	Post Registration Education Needed
McAllister, Creedy, Moyle & Farrugia	2002b	20 then 1008 Participants	ED RNs	Quantitative	Negative Attitudes Apparent	Education required in the ED
McAllister, Billet, Moyle & Zimmer-Gembeck	2008 & 2009	36	ED RNs	Pre-Test/Post-Test Solution Focused Study	Lack of Education Impeded Sufficient Support to Individuals who had Self-Harmed	A need for Specific Post-Registration Education
McAllister, et al.,	2009	28	ED RNs	Think Aloud Procedure	Increased Knowledge Resulted in Increased Quality of Care	Ongoing Education
McCann, Clark, McConnachie & Harvey	2006	43	ED RNs	Explorative Study	Older More Experienced Nurses Held More Supportive Views and More Positive Attitudes	Post-Registration Imperative for Skill Development
Slaven & Kisley	2002	13	Rural RNs	Qualitative	Inconsistent & Deficient Management of NSSI	Better Communication Between Services, Support for Nurses Dealing with NSSI, Development of: a Simple Risk Assessment Tool, of a Nurse Liaison Role & Multi-disciplinary Planning Group.

3.3.2 Mental Health Nurse Attitudes Towards NSSI

The following section focuses on mental health nurses' attitudes, knowledge and beliefs about individuals who engage in NSSI. However, studies undertaken with community and forensic RNs and enrolled nurses are also included, both internationally and within Australia.

3.3.2.1 International Research on Mental Health Registered Nurses'
Attitudes Towards NSSI

Mental health nurses who engage with individuals who self-injure often experience strong negative emotions (Patterson et al., 2007). In a UK study a brief and robust quantitative instrument for assessing nurse attitudes in relation to NSSI, SHAS, was developed and tested on 153 nurses attending a post-registration course on approaches to self-harm (Patterson et al., 2007). The questionnaire was developed to measure attitudes as nurses with prolonged engagement with individuals who frequently present with NSSI can emotionally feel antipathy and 'malignant alienation' (Patterson et al., 2007). This study revealed both positive and negative attitudes from nurses towards self-injury unlike other studies that discussed either negative or positive attitudes in isolation (Crawford et al., 2007). Although the majority were mental health nurses, the questionnaire also captured the views of some general nurses and social workers (Patterson et al., 2007). The study showed that attitudes were not simply negative or positive but rather there were a variety of responses and the nurse did not necessarily demonstrate antipathy (Patterson et al., 2007). Further, the study showed that some nurses were clearly unprepared to work with NSSI and some clearly believed they lacked the skill set to work with these individuals (Patterson et al., 2007). The study concluded that identification of

antipathy is not in itself sufficient to affect the care provided to the self-injuring individual (Patterson et al., 2007). In this current study, the researcher utilised the SHAS (Patterson et al., 2007) with the ATDSHQ (McAllister et al., 2002) in order to either uphold or dispute the findings by Patterson and colleagues (2007) and McAllister and colleagues (2002b). The researcher aimed to determine if there was endorsement by RNs and ENs for positive attitudes towards NSSI.

The effectiveness of an educational intervention aimed at enhancing mental health nurses' attitudes towards NSSI was provided in a UK study in which intervention consisted of an accredited course run over four weeks on the general management of NSSI (Patterson et al., 2007). This study also used the SHAS (Patterson et al. 2007), which was given pre and post course. The course was found to be positive, with a 20% reduction in antipathy that was maintained over 18 months compared with the comparison group of a 9% reduction in antipathy (Patterson et al., 2007). Additionally, the study found preliminary evidence for enhancing a skillset, a valuing of the care process and the awareness of what can contribute to NSSI, all of which is necessary in enhancing the self-injuring individual's care (Patterson et al., 2007).

In another UK study, 140 acute mental health inpatient care nurses' attitudes were examined (Munro & Baker, 2007). A response rate of 55.8% was achieved and the majority (≥80%) of responses were positive (Munroe & Baker, 2007). The results demonstrated that although a wide range of attitudes were held by mental health nurses, these were generally positive (Munroe & Baker, 2007) in contrast to other studies (McHale & Felton, 2010; O'Donovan, 2007; O'Donovan & Gijbels, 2006).

This positive outcome however, was not reflected in a small Irish study (n = 8 via convenience sampling) which used semi-structured interviews and identified several themes (O'Donovan, 2007; O'Donovan & Gijbels, 2006). The study was conducted in two acute mental health units in which the service employed 75 mental health RNs (O'Donovan, 2007; O'Donovan & Gijbels, 2006). All had experience working with individuals who engaged in NSSI and decisions the nurses made were found to be reactive and punitive rather than proactive (O'Donovan, 2007; O'Donovan & Gijbels, 2006). The priority for nursing care was on providing a safe environment, preventing NSSI, specialling the individual, using no-harm contracts and distraction techniques (O'Donovan, 2007). The nurses interviewed were aware of such therapies such as cognitive behavioural therapy and solution-focus therapy but felt unable to utilise these skills due to the nature and requirements of an acute mental health inpatient setting (O'Donovan, 2007). However, there was no consistent pattern to the nurse's practice and this was viewed as related to lack of clear policies and guidelines both locally and nationally for managing NSSI (O'Donovan & Gijbels, 2006). The findings of this study however, cannot be extrapolated due to the small number of participants.

Other studies also demonstrated a need for ongoing education such, as a UK study that explored nurse perceptions towards NSSI (n = 76) using vignette, knowledge measures and attitude questionaries (Wheatley & Austin-Payne, 2009). Nurses who felt more negative about NSSI reported more concerns working with these individuals, and neither gender nor length of work experience was found to be significant factors (Wheatley & Austin-Payne, 2009). Again this study recommended further education and training for nurses working with NSSI and complemented other

studies indicating ongoing educational prerequisites (Gallop & Tully, 2003; McHale & Felton, 2010; Munro & Baker, 2007). Research suggests that an understanding of the needs of an individual with a mental illness does not always concur with nurses' knowledge of this medical illness (Shattell, McAllister, Hogan & Thomas, 2006).

In order to understand NSSI the nurse must first understand mental illness. A misunderstanding of mental illness can relate to a negative attitude and fear of NSSI. Negative reactions towards NSSI can adversely affect treatment outcomes for the self-injurer (Husband & Tantam, 2000). This was found in a study aimed to identify and explore nurses' attitudes towards NSSI in a large group of mental health nurses (n=386) (Husband & Tantam, 2000). Many felt NSSI was difficult to manage (75%) and a number (65%) felt that building a relationship with a self-injurer would be difficult (Husband & Tantam, 2000). Gender had no influence on the findings however, age of the nurses and years of experience in nursing correlated with more negative outcomes with older and more senior nurses (Husband & Tantam, 2000). Further, emphasis on effective communication and preventative interventions between nurses and the management of NSSI should occur (Bosman & van Meijel, 2008). For this current study, the age of the nurse, gender and years of experience are explored.

3.3.2.2 Australian Research on Mental Health Registered Nurses' Attitudes Towards NSSI

Purves and Sands (2009) explored the attitudes of Victorian (Australian) triage clinicians towards individuals with a personality disorder as these individuals engage in NSSI more than any other diagnostic group (DSM-V, 2013). The study was an explorative descriptive design, and indicated that crisis and mental health triage nurses, medical staff, psychiatric registrars, and allied health clinicians held negative

attitudes towards individuals who had a diagnosis of a personality disorder and who engaged in NSSI (Purves & Sands, 2009). This study supports international research on registered nurses' attitudes towards NSSI (Anderson, 1997; O'Donovan, 2007; O'Donovan & Gijbels, 2006). The conclusion sustained the idea that education and clinical supervision is essential in addressing negatives attitudes towards the self-injurer (Purves & Sands, 2009). No Australian study has compared mental health nurses and enrolled nurses' attitudes and knowledge towards individuals who self-injure (Refer Table 3.4).

Table 3.4. *Literature Results for Mental Health Educated RNs in Australia 2000-2014*

Author	Year	Number of Participants	Type of Nurse	Study Methodology	Results	Recommendations of study
Purves &Sands	2009	110 of which there was 64 returning responses	Triage/MHN RNs	Explorative Descriptive Design	Triage RNs Expressed Negative Attitude Towards Individuals with a Personality Disorder who Presented with NSSI to the ED	Ongoing Education and Clinical Supervision is essential

3.3.3 International Research on Community-based Registered Nurses Attitudes Towards NSSI

A UK study of 80 nurses compared the attitudes of community mental health nurses and nurses employed within the ED towards individuals who had self-injured (Anderson, 1997). A survey methodology was used and a t-test analysis showed no statistical differences between these two groups in their attitudes towards self-injury

which were predominately negative towards self-injury (Anderson, 1997). However, attitudes were significantly different between length of experience and age of the nurse in both the community mental health nurse group and the ED nurse (Anderson, 1997). Those who had worked for many years and who were older, were observed as having a more positive regard towards self-injurious behaviour (Anderson, 1997). This study is in contrast to a UK study of eight experienced community mental health nurses (ten years post registration) which used interpretive phenomenological analysis (Thompson, Powis & Carradice, 2008). In this study, all nurses found it difficult to conceptualise NSSI and stressful to manage individuals who self-injured (Thompson et al., 2008). Managing risk in this patient group and managing the emotional impact and professional boundaries was viewed as difficult (Thompson et al., 2008). Again this study highlighted the need for further education, training and support for nurses who manage NSSI (Thompson et al., 2008).

3.3.4 International Research on Forensic Registered Nurses Attitudes Towards NSSI

Only one study was found regarding forensic nurses' attitudes towards NSSI. Despite this, it is important to note that this study again reflected punitive and negative attitudes towards self-injuring individuals and that nurses continue to seek out education regarding this phenomenon. In this study, a questionnaire and open-ended questioning was designed to measure the attitudes of forensic care RNs towards individuals who engaged in NSSI (Gough & Hawkins, 2000). All the nurses at the UK forensic mental health service (n = 156) were sent questionnaires and 45 were completed and returned (Gough & Hawkins, 2000). Cluster analysis was carried out which found that nurses held punitive and somewhat negative attitudes towards NSSI

(Gough & Hawkins, 2000). Overall, nurses reported little training in the understanding and management of NSSI despite much contact with individuals who self-injure (Gough & Hawkins, 2000). The need for more education regarding NSSI was again reflected in this study's conclusion (Gough & Hawkins, 2000).

3.4 Summary

This chapter examined the available international and Australian literature on general and acute care nurses, ED nurses, mental health nurses, community mental health nurses and nurses employed within forensic mental health settings in relation to their attitudes towards, and knowledge of, NSSI. In general, the literature showed negativity towards NSSI by nurses and a strong argument for more education. It is important to determine if a negative attitude is supported in the current study. From a review of the literature it has been established that more education has been provided to both undergraduate and post-graduate nurses regarding NSSI and the culture surrounding NSSI may have changed as a result. Hence, the outcomes of this current study may benefit the ongoing education of nurses by providing a benchmark for the management of self-injury. Further, the findings of this study would assist in understanding the phenomena of NSSI and highlight strategies that could be put in place to manage self-injury more effectively. The literature repeated the need for curriculum development at undergraduate level and ongoing post-registration education and clinical supervision for nurses who manage NSSI. However, this integrated review indicated a notable absence of research on the attitudes toward NSSI of community mental health nurses in Australia and enrolled nurses in either Australia or internationally, a gap which, in part, the present research aims to fill. Additionally, the literature does not reveal whether there has been a cultural shift over time and how

this currently affects nurses' knowledge, attitudes and beliefs towards NSSI which this current study aims to address. There is also paucity in the literature generally on nurses' attitudes and knowledge about NSSI especially regarding mental health nurses. A further justification for the study is that there is little literature on nurses' attitudes in Australian literature beyond 2009. Recently within Australian health services there have been initiatives to provide specific programmes such as SPECTRUM in Victoria, and it is important to ascertain if these programmes have changed attitudes. The education and clinical supervision for nurses' towards NSSI over the previous five years has been more detailed and thorough in content and now needs to be evaluated. There is now need to understand whether this overall education at undergraduate and graduate level results in more positive attitudes from nurses towards NSSI. In subsequent chapters the researcher builds upon the background work presented in this chapter. The following chapter explores the methodology for this study.

Chapter 4: Methodology

4.1 Introduction

A research methodology is the researcher's strategies to investigate a given topic. Accordingly, this chapter provides an overview of the approach used in conducting this research study. A two phase mixed methods was used in order to provide more meaningful, complete and purposeful data than using a single design research study (Burns & Grove, 2011). As such, in this chapter the research methodology of the current two phases mixed methods study is explained and justified. In addition, the details of each step undertaken in completing the research are presented. This includes the research design, setting, aim and questions, recruitment and sampling of the two phases, population and inclusion criteria, tools, instruments, data analysis, rigour and the ethical considerations for the study.

4.2 Research Design

A research design can be defined as the precise manner for the conduct of the study that maximises control over the factors that could interfere with the study's outcome (Burns & Grove, 2011). This then is the plan or framework of the study (Lacobicci & Churchill, 2010). The research design directs and systemises the collection of data and data analyses. Leedy and Ormrod (2010) add that research designs connect the research questions to the data. In this case the research design is mixed methods.

Mixed methods are approaches to research that use a combination of more than one research strategy in a single investigation (Speziale, Streubert & Carpenter, 2011). This type of research method usually refers to at least two methods of gathering data:

quantitative and qualitative data. There are however, several pathways to its application (Creswell & Plano Clark, 2011). Quantitative research designs infer evidence for a theory through measurement of variables that produce numeric outcomes in contrast to qualitative methods (Field, 2009). In fact, quantitative methods are objective, have one reality, are measurable, mechanistic, result in reduction, are about control and prediction, and the parts equal the whole. Additionally, quantitative research report statistical analysis, the researcher remains separate from the analysis, refers to 'subjects', and is context free (Streubert & Carpenter, 2011). In the first phase of the study, attitudes and knowledge of nurses' towards NSSI could best be summarised and generalised in terms of statistics, hence the requirement of a quantitative analysis.

Alternatively, qualitative research is an integral component of research in the social and behavioural science (Creswell & Plano Clark, 2011). This type of analysis explores the processes that underlie human behaviour using exploratory techniques such as interviews, surveys, case studies and other relatively personal techniques (Salkind, 2012). Qualitative research methods are subjectively valued, have multiple realities, are interpretive, organismic, endorse discovery, description and understanding of the phenomenon, view the whole as greater than the parts, report rich narrative, include the researcher as part of the research process, utilise the term participants, and is context dependant (Streubert & Carpenter, 2011). In the second phase of the study, therefore, beliefs were best analysed using qualitative methods.

Combining quantitative and qualitative research, termed mixed methods, allows the researcher to explore the topic from multiple perspectives and to obtain more meaningful and reliable information (Creswell & Plano Clark, 2011). Thus, the nature of mixed methods research is a research design utilising both quantitative and

qualitative approaches to provide multiple perspectives in order to answer the research questions (Schneider, Whitehead & Elliot, 2007). According to Creswell and Plano Clark (2011) mixed methods research is a method of enquiry that guides the process of data collection and analysis by mixing quantitative and qualitative approaches in many stages or phases during the research development process. The purpose of using mixed methods approach is to validate the results, bring together the strengths of both quantitative and qualitative designs, and influence the nature of the findings and the conclusions drawn from the study (Denzin, 2005). Combining the two methodologies also means that the strengths of both approaches can contribute immensely to the exploration and comprehension of a phenomenon (Salahi & Golafshani, 2010). The provision of a comprehensive response to the research questions using mixed methods could not be obtained by using a single approach (Polit & Beck, 2012; Streubert & Carpenter, 2011).

Neither quantitative nor qualitative research methodologies are without their limitations. Some limitations of qualitative research include that it is subjectively valued, has multiple realities and is context dependant, whereas some of the limitations of quantitative research are that it is mechanistic, contains one reality, separates the researcher from the analysis and is context free (Streubert & Carpenter, 2011). Combining the two research methods assists in addressing their respective weaknesses (Denzin & Lincoln, 2009). Mixed methods is an approach to research that uses a combination of more than one research strategy in a single investigation (Speziale et al., 2011). Using a mixed methods approach results in the integration of data collection and analysis processes from both a quantitative and qualitative perspective. This approach can then be incorporated or triangulated to meet the research objectives

comprehensively and can be undertaken at the same time or sequentially (Creswell & Garrett, 2008). For this study, quantitative and qualitative research was undertaken concurrently.

With mixed methods research design the quantitative approach must be justified and separately described in the research study (Morse, 2003). After analysis of both phases the researcher may find an explanation for the quantitative results from the findings of the qualitative result. In this study the product of the data analysis process gave a more thorough understanding of the research topic from both quantitative and qualitative research perspectives. As both phases were conducted concurrently, results of both phases are interpreted together to give more meaning to the research study. Mixed methods do not generate two separate studies as the phenomenon of interest remains the study focus (Creswell & Plano Clark, 2011; Schneider et al., 2007) and the triangulation of data enriches the outcomes (Lewis, 2011).

Mixed methods studies are not always the solution to the problems of using quantitative or qualitative analysis alone. Pragmatism and its place in mixed methods design has some caveats on the interpretation of data from this type of research (Lipscomb, 2008). Furthermore, Lipscomb (2008) states that mixed methods researchers should neither be naïve nor lack theory, and cautions against unreflected pragmatism and theoretical indifference. Lipscomb (2008) advises that mixed methods research should be truly mixed and not contain two separate studies in one. The belief that mixed methods is often seen as the third paradigm is contested by Giddings and Grant (2007) who view this notion as problematic. Often quantitative methods have dominance over qualitative methods however, the vocabulary of mixed methods research also shows that there is no clarity between the mixing of methods or

methodologies (Holloway & Wheeler, 2010). Andrew and Halcomb (2009) explained that the mixed methods research approach is accepted due to the increasingly complex and multifaceted phenomena examined in nursing research. The main limitations and prominent disadvantages of mixed methods research is when qualitative data is quantitised with the loss of flexibility and depth of this data. This occurs because qualitative codes are multidimensional whilst quantitative codes are one-dimensional and fixed (Bazeley, 2004). Hence, changing rich qualitative data to dichotomous variables produces one dimensional immutable data (Driscoll et al., 2007). It is possible for a researcher to avoid quantitising qualitative data but it can become very time-consuming and a complex process as it requires analysing, coding and integrating data from unstructured to structured data (Driscoll et al., 2007).

Another problem associated with mixed methods design is the possible statistical measurement limitations of quantitised qualitative data as it is very vulnerable to collinearity (Roberts, 2000). Researchers having to collect and analyse qualitative data may reduce their sample size for the design to be less time-consuming and doing so can affect statistical procedures like analyses of variance and t-tests. This is a serious challenge for the mixed method design as the researcher may not have enough statistical power to support their research (Driscoll et al., 2007). This can be avoided if quantitisation of qualitative data is precluded (Refer to Table 4.1).

Table: 4.1.*Weaknesses of Mixed Methods Design (Onwuegbuzie & Johnson, 2004)*

• Time Consuming & Expensive.
• Difficult finding a researcher with experience in both qualitative and quantitative research.
• Researcher has to learn multiple methods and be able to know how to mix each method effectively.
• Methodological purists believe that a researcher should either pick the qualitative or quantitative paradigm and not both.
• How to interpret conflicting results & analysing quantitative data qualitatively still need to be figured out.

In conclusion, mixed methods design can be an effective design to use but only if the researcher is well versed in both quantitative and qualitative research methods and aware of how to avoid the major challenges of the design (for example, if collinearity was used).

A mixed methods design was used to assess nurses' attitudes, knowledge and beliefs towards individuals who engage in NSSI. As there was little knowledge about nurses' attitudes, knowledge and beliefs towards the self-injurer, this study used an explorative descriptive design where both quantitative and qualitative data were sought. Phase One, the quantitative phase, was where the data collection was based on a survey. This was followed by Phase Two, the qualitative phase which utilised over-the-telephone interviews asking semi-structured interviews with nurses. The quantitative and qualitative phases of this study required nurses to answer different questions and provide different levels and aspects of information to address the

research aim. How these two approaches were used in this study is illustrated in

Figure 4.1.

Using a mixed methods approach for this study, assisted in the integration of the

data collection and analysis processes from a quantitative and qualitative perspective to

be incorporated, or triangulated, in order to comprehensively meet the research

objectives. Hence, the purpose of using mixed methods approach is to validate the

results, bring together the strengths of both the quantitative and qualitative designs, and

influence the nature of the findings and the conclusions drawn from the study (Denzin,

2005).

Figure 4.1.

Mixed Method Approach Used in this Study Based on Creswell and Plano Clark (2011)
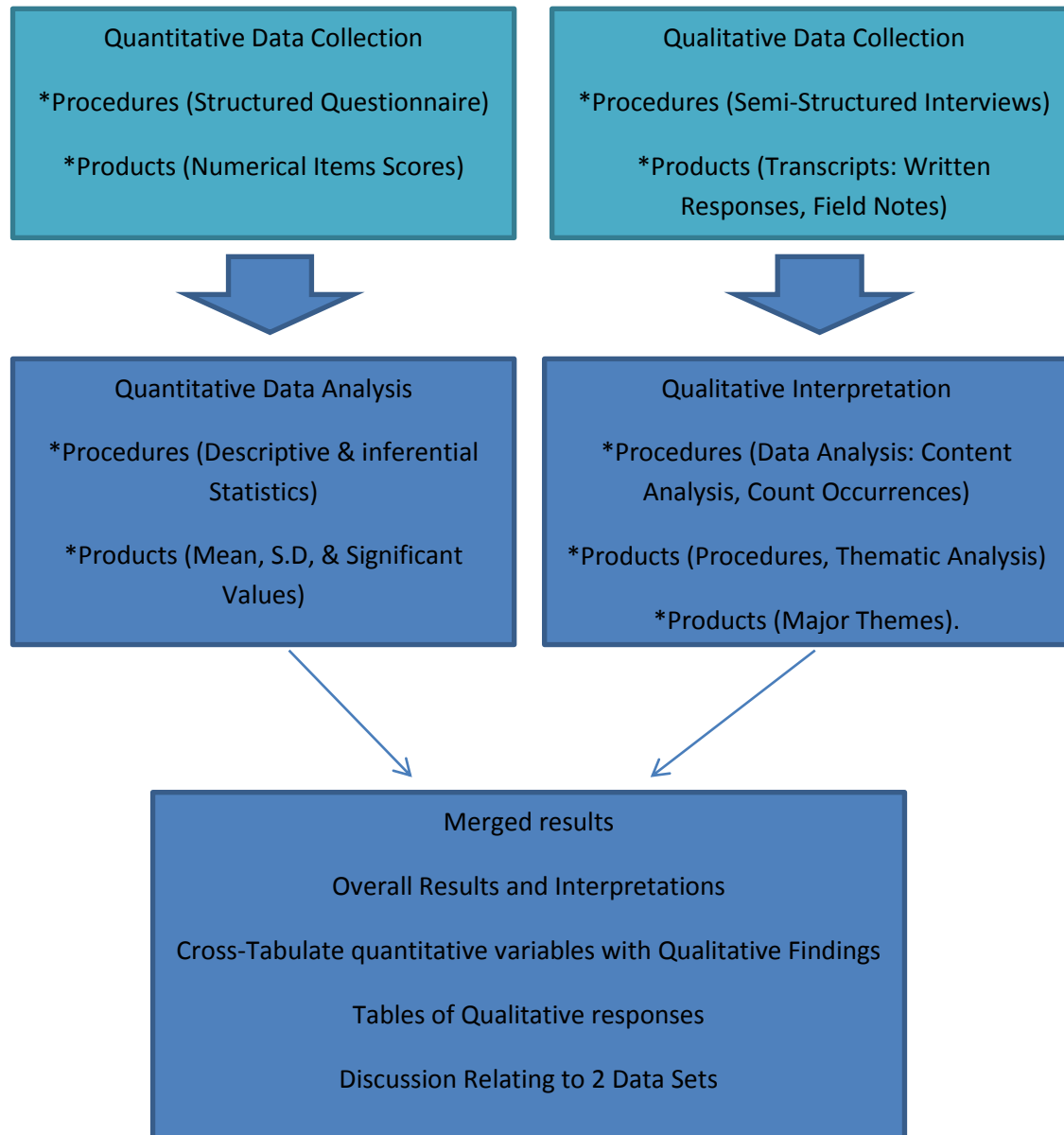
4.3 Research Aim

The aim of this study was to investigate nurses' attitudes, knowledge and beliefs towards individuals who engaged in NSSI. The study aimed to explore current nursing beliefs about NSSI and nurses' attitudes and knowledge about such behaviour. The

study was designed into two separate phases to enhance findings and facilitate validation of data by integrating both phases. In order to accomplish this, the study involved a survey phase and a semi-structured interview phase.

4.4 Research Objectives

The objectives of the study were to:

1. Examine the nurses' attitudes about NSSI.

2. Examine the nurses' knowledge towards self-injury.

3. Examine the nurses' beliefs about self-injurious behaviour.

4. Explore any differences between Registered Nurses (RNs) and Enrolled Nurses (ENs) knowledge, attitudes and beliefs towards NSSI.

5. Explore any differences between mental health educated and non-mental health educated nurses' knowledge, attitudes and beliefs in ED and mental health units towards NSSI.

4.5 Research Questions

The research questions that underpinned the study were:

1. What is the knowledge, attitudes and beliefs of mental health educated RNs and non-mental health educated RNs towards deliberate self-injury?

2. Is there a difference in knowledge, attitudes and beliefs between mental health educated and non-mental nurses in the ED towards self-injurers?

3. Is there a difference in knowledge, attitudes and beliefs between mental health educated and non-mental health educated nurses employed in mental health units towards self-injurers?

4. What is the effect of years of experience on the knowledge, attitudes and beliefs towards NSSI?

5. Is there a difference between the knowledge, attitudes and beliefs of enrolled nurses (EN) and registered nurses (RN) towards self-injuring individuals?

4.6 Research Setting

Phase One of the research was conducted Australia wide on the internet using a Qualtrics survey. Phase Two was conducted as interviews over-the-telephone Australia wide. First, an overview of mental health and ED services across Australia is required.

The development of mental health and ED services differ from state to state. South Australia has an identical mental health and ED service as Victoria (personal communication, 2013). This is a service where the mental health facilities are completely integrated within the general health service. The mobile community crisis teams in South Australia are also very similar to Victoria's, whereby mental health services are managed by a crisis assessment and treatment team (CATT), now termed emergency and crisis assessment teams (ECAT) (South Australia Health Department Web-Site, 2013).

The Australian Capital Territory (ACT) and New South Wales (NSW) have a partially integrated mental health and general hospital services and some of which respond to people with NSSI frequently (personal communication, 2012). In NSW there are some stand-alone mental health services. Western Australia has community crisis teams, termed psychiatric emergency teams (PET), that are not integrated health settings but rather stand-alone mental health facilities (personal communication, 2012). In Queensland there is an integrated health setting, however, the mental health services are not within the same buildings of the general hospital services but are contained within

the same grounds (personal communication, 2012). In the Northern Territory there are only two mental health facilities: one in Darwin and one in Alice Springs (personal communication, 2012). There are, in addition to these services, remote community nursing teams that assess and treat individuals with mental health issues including NSSI.

4.7 Population and Sampling

4.7.1 Phase One

Sampling is the process of selecting suitable participants in a research study. Sampling has major influences on the interpretation of the findings and length of the project (Johnson & Chang, 2011). In mixed methods research design there are many sampling processes that can be applied to select participants in a research study. For this study a convenience sampling method was employed.

Nurses who were either RNs or ENs were invited to participate in this study. The nurses were required to be currently registered with the Nursing and Midwifery Board of Australia as administered by the Australian Health Practitioner Regulation Agency (AHPRA), and hold membership with a professional nursing organisation. This study invited nurses employed in metropolitan public and private hospitals, EDs and mental health facilities in rural and remote areas across Australia to complete an online survey. The nurses were either general nurses with or without mental health qualifications; EN with or without mental health qualification; and ENs with or without medication endorsement.

Peak professional nursing bodies were contacted by telephone by the researcher for recruitment of participants for the online survey. Visits to nursing organisations including the Health and Community Services Union (HACSU) and the Australian

Nursing and Midwifery Federation (ANMF) occurred. The researcher spoke with the Chief Executive Officer and Education Officer respectively of both organisations about the research goals and aims of the research study. As most mental health nurses are members of either HACSU or the ANMF, the researcher chose to meet with representatives of these organisations to assist with recruitment. A copy of the RMIT University ethics approval, consent form and plain language statement (PLS) were provided to both HACSU and the ANMF. The other major significant professional nursing organisations including: College of Emergency Nurses Australia (CENA), Senior Psychiatric Nurses Association, the Australian College of Nursing (ACN), and the Australian College of Mental Health Nurses (ACMHN) were contacted by telephone by the researcher to assist with the recruitment of participants. Advertisements of the research were emailed to all professional nursing organisations contacted for placement on their websites. This included the consent forms, ethics approval form and the PLS so as to enable participants to be fully informed about the study. Paid advertising to attract nurse participants was undertaken on the websites of the ACMHN and ACN twice, several months apart. All professional nursing organisations mentioned above were contacted three times during the duration of the data collection to promote the online survey within their newsletters and on their websites and to remind and encourage as many of their nurses as possible to access and complete the survey to encourage a high response rate. Data was collected between January 2013 and December 2013 concurrently for both Phase One and Phase Two.

4.7.1.1 Inclusion Criteria

Participants who met the following criteria were eligible to participate in the study:

1. Nurses who were registered as RNs with the Nursing and Midwifery Board of Australia with or without mental health qualifications and were members of their professional nursing organisation.

2. Nurses who were registered as ENs with the Nursing and Midwifery Board of Australia with or without medication endorsement and with or without mental health endorsement as approved by the Nursing and Midwifery Board of Australia and were members of their professional nursing organisations in Australia.

3. Nurses who had access to the Internet.

4. Nurses who had not participated in the pilot study.

4.7.2 Phase Two Sampling

The process of selecting participants for Phase Two was by inviting Phase One participants to email the researcher if they were interested in participating in an over-the-telephone interview. This invitation was made at the conclusion of the anonymous online survey in Phase One of the study. If the participant was willing to be included in this phase of the study, the participant forwarded their telephone number to the researcher via an email address provided. The participants were allocated an anonymous code and after telephone contact, the telephone number was destroyed. Telephone interviews were utilised to obtain the qualitative data due to the remoteness of many of the participants. This proved to be an effective method as participants who remained anonymous were able to be open about their opinions in regard to attitudes about self-

injuring individuals in their care. The interviews were sought to obtain further and more in-depth information regarding nurses' attitudes towards NSSI and the self-injuring individual. From the expressions of interest, the researcher chose to contact the first 30 respondents, however saturation occurred at 25, and so data collection ceased at this point. The first 25 nurses were selected for interview, which included 21 RNs and 4 ENs.

4.7.2.1 Saturation

A feature closely related to the topic of sampling is saturation which refers to the repetition of discovered information and confirmation of previously collected data (Morse, 2003). Saturation occurs when no new themes emerge (Streubert & Carpenter, 2011). The repetitive nature of data is the point at which the researcher determines that saturation has been achieved (Streubert & Carpenter, 2011) however, Morse (2003) highlights that saturation may be a myth. The best outcome that a qualitative researcher can achieve in terms of saturation is to saturate the specific culture or phenomenon at a particular time. Based on these findings, 25 participants were selected for interview for this research study.

4.8 Recruitment Period

The recruitment process began in January 2013 and concluded in December 2013. After obtaining all ethical approvals in December 2011 the data collection phase took place in 2013, and a consent form and PLS was developed in order for data collection to take place. It took 12 months for the Qualtrics survey to be designed and set up on the Internet.

4.9 Data Collection Instruments

The current study employed two different tools in order to collect data from participants.

4.9.1 Phase One Quantitative

4.9.1.1 Demographic Data

Part A of the research instrument sought demographic information from the participants, including gender, age range, whether the participant was a RN or EN, if the participant held a mental health nursing qualification and if so, what type of qualification, the participant's current position, the type of hospital where the nurse was working, years of experience as a mental health nurse, years of nursing experience in any field generally, employment whether in a public or private facility, educational achievements, and whether they were employed in a metropolitan or rural service. (Refer Appendix A). The demographic data collected was unidentifiable. The demographic survey items were developed in consultation with the researcher's supervisor's expert opinion, the researchers own extensive experience and was additionally informed by the literature (Patton, 2002).

4.9.1.2 Research Instruments

Questionnaires are the most common instruments used by researchers to collect data (Polit & Beck, 2012). The questionnaire in this study was formulated by using two previously tested questionnaires in the literature: the Attitudes Towards Deliberate Self-Harm Questionnaire - ATDSHQ (McAllister et al., 2002b) and the Self-Harm Antipathy Scale - SHAS (Patterson et al., 2007). Prior approval to utilise the questionnaires was obtained from the respective authors. Professor Richard Whittington, on behalf of

Professor Patterson who had recently retired, was contacted and approval provided for use of the SHAS Questionnaire (2007). For the ATDSHQ (2002b) questionnaire, approval was sought and obtained from Professor Margaret McAllister. Permission to utilise both questionaries was obtained in mid-2011.

Phase One used a software product, referred to as Qualtrics, to create an anonymous online questionnaire. Qualtrics is a web-based tool for creating and conducting online surveys which was first developed by the Qualtrics Company in 2002 in Provo, Utah. For the online survey, both questionnaires were used as some items in the ATDSHQ (2002) were similar to items in the SHAS (2007). This was a cross-sectional survey method aimed to elicit information on the demographics, attitudes, knowledge and beliefs of nurses' towards self-injuring individuals who present to the ED and/or acute adult mental health inpatient units within Australia. Forty-three Likert Scale items were derived from the SHAS (Patterson et al., 2007) and ATDSHQ (McAllister et al., 2002b). Items 1 to 28 within the Likert Scale were from the SHAS (Patterson et al., 2007) and items 29 to 43 were taken from the ATDSHQ (McAllister et al., 2002b) (refer to Appendix D – SHAS and Appendix E - ATDSHQ). For the Qualtrics survey, all of the SHAS (Patterson et al., 2007) Likert Scale questions were used in the questionnaire and the questions of the ATDSHQ (McAllister et al., 2002b) that were eliminated were a repeat of the questions found in the SHAS (Patterson et al., 2007). The items from the ATDSHQ (McAllister et al., 2002b) that were measuring whether or not the attitudes of nurses' towards self-injury were positive or negative and the depth of knowledge nurses' held about NSSI, the educational needs of nurses' about SI and feelings towards self-injury and consequential feelings of disempowerment were included in the on-line questionnaire. The SHAS (Patterson et al., 2007) assessed beliefs and knowledge of the nurses towards NSSI, moral concerns the participant held about

NSSI and the individual who self-injurers. Positive or negative attitudes towards NSSI, and thoughts that the nurse held about the individuals who engaged in such behaviour were also surveyed from the SHAS and the ATDSHQ. The 43 item Likert Scale online survey included questions around the themes of attitudes towards NSSI (items 17-24 and 31-33), knowledge about NSSI (items 28, 10-12, 36-37 and 41), beliefs about NSSI (items 4, 14, 25 -26, 27, 29, 33, 38, 40 and 42-43) and moral beliefs about individuals who self-injure (items 3, 5-7, 9, 14, 28, 34,and 39). Thus, this was not a new instrument but the combination of two tested and reliable research instruments (McAllister et al., 2002b; Patterson et al., 2007).

Approximately 20-30 minutes was required to complete the online questionnaire. The participants completed the online questionnaire voluntarily and anonymously. The Likert Scale for the questionnaire included four boxes to choose from for each of the 43 items. The format for the four levels were: number one strongly agree, number two agree, number three disagree and number four strongly disagree. Neutral response was not included in the scale to avoid central tendency effect of the participant responses in the study (Li, 2013).

A reliability study of the 43 item research tool revealed an overall Cronbach's alpha of 0.901 demonstrating reliability of the instrument. Reliability was additionally evaluated through analysis of the individual survey themes of beliefs, knowledge, moral views and attitudes as determined by the instrument authors (McAllister et al., 2002b; Patterson et al., 2007). This analysis revealed Cronbach's alpha values of 0.639 for beliefs (13 items), 0.686 for knowledge (10 items), 0.718 for moral views (9 items), and 0.809 for attitudes (11 items) for the combined survey used in this study.

4.9.1.3 Distribution of the Survey

After receiving ethical approval from the RMIT University Human Research Ethics Committee (refer to Appendix A) the researcher approached each professional nursing organisation and provided them with a link to the Qualtrics web-page survey for posting on their organisational webpage. The link on each professional nursing organisation's website to the survey also contained the RMIT University ethics approval document, the consent form (Appendix C), PLS (Appendix B) and rationale for the research. Participants were required to view these prior to completing the survey. The PLS was available on each of the nursing organisation's websites and provided an explanation of the research aims in brief as well as an outline of the nature of the potential respondent's involvement, and the importance of the study. The PLS described the study, the benefits to nurses, nursing education, future curriculum developments and positive contributions to future nursing practice. It also included the names and contact details of the researcher and the researcher's supervisors if a participant required further information about the study, or was distressed during or after completing the study. Reading the PLS and consent form prior to completing the anonymous Qualtrics questionnaire was required. Completion of the online questionnaire implied that the nurse consented to be part of this study. The nurses could withdraw from the study at any stage. The nurses who elected to participate in this study were able to click on the link and go directly to the questionnaire.

4.9.1.4 Accessing Participants Online: Practical Considerations

There have been some strategies that researchers, especially in the social and health sciences, adopt to gain access to their potential participants, and one of these methods is online (Liamputtong, 2009). Special interest sites such as professional

organisation websites are useful for contacting appropriate potential participants (Liamputtong, 2009). Accessing potential research participants can be done through the Internet. It can also be done by including email contact or website details when advertising the research via leaflets and in journals. In addition, there can be a combination of Internet-email or telephone (Liamputtong, 2009). For this study, use of professional organisation websites method was utilised to recruit as many nurses as possible to respond anonymously to the survey and to the telephone interviews.

4.9.2 Phase Two Qualitative

The aim of utilising over-the-telephone semi-structured interviews was to confirm the data gathered from Phase One and to provide recommendations for acknowledging nurses current thinking about individuals who engage in NSSI. The semi-structured interview questions consisted of 4 main themes surrounding NSSI (refer to Appendix F). These themes were then elaborated into 24 subthemes and semi-structured questions. The themes were extrapolated from the literature, from the expert opinion of the supervisors and from the researcher's own experience. Areas of concern about NSSI were also explored.

The second phase of this research study utilised a qualitative research method using semi-structured, over-the-telephone interviews. A qualitative research method is a way to understand the individual's experience, interpretation and practice (Schneider et al., 2007). The semi-structured telephone interviews were designed to gain an in-depth understanding of what the concept of nurses' attitudes towards the self-injurer and NSSI were in general. According to Tashakkori and Teddlie (2010), using interviews for data collection can be a powerful tool to further explain and confirm research findings. Creswell (2007) argued that interviews permit participants to describe detailed personal

information. Research methods are the techniques researchers use to structure a study and gather and analyse information relevant to the research questions (Polit & Beck, 2012). Further, qualitative research explores the individual's experience and the manner in which individuals, groups and communities construct a collective meaning about their daily life (Welch, 2011). The qualitative research phase was included as part of this mixed methods design study as triangulation of methods can enhance the outcome of the research study and better answer the research questions (Creswell & Plano, 2007).

4.10 Content Validity

To evaluate the content validity of the instruments used in this study, the researcher conducted a pilot study and then forwarded the results to an expert panel to review and rate the instruments of both phases of the research.

4.10.1 Phase One

The questionnaires, the SHAS (Patterson et al. 2007) and the ATDSHQ (McAllister et al. 2002b) were previously well validated in the literature. Validity is the level to which an instrument measures the designation of a concept accurately (LoBiondo-Wood & Haber, 2010). A valid instrument reflects the concepts it is designed to measure. The instrument of data collection in this research study was a combination of the SHAS (Patterson et al., 2007) and the ATDSHQ (McAllister et al., 2002b). When a researcher develops a questionnaire, validity needs to be considered along with reliability (LoBiondo-Wood & Haber, 2010).

Validity and reliability are important in data collection (Bryman, 2008; Johnson & Christensen, 2008). Validity is an essential criterion to evaluate the quality of the

research (Cohen, Manion & Morrison, 2010). It refers to the accuracy and the ability of

a research tool to measure what it is ideally intended to measure (Field, 2009). Validity

is the degree to which an instrument measures what it is supposed to measure (Polit &

Beck, 2012). Reliability and validity are not independent qualities of an instrument

(Polit & Beck, 2012). Specifically, construct validity is concerned with the relationship

between the different responses and test items. It links the research questions or

hypotheses with the data collected and validates the investigation (Creswell, 2007).

Reliability is also a crucial criterion in evaluating the quality of research (Cohen et al.,

2010). According to Creswell (2007), reliability means that individual scores from an

instrument should be nearly the same, or stable, on repeated administrations of the

instrument, should be free from sources of measurement error, and should be consistent.

It ensures that the research instrument, in this study an online questionnaire, is

consistent in that individual scores can be replicated (Leedy & Ormrod, 2010).

In this study, the two research instruments that were utilised had already been

validated and their reliability ascertained in the literature (McAllister et al., 2002b;

Patterson et al., 2007). The study addressed validity and reliability by utilising two

rigorously tested survey instruments. The ATDSHQ (McAllister et al. 2002b) claim for

validity was previously developed from three phases: a literature review on nurses'

attitudes to NSSI, focus groups with ED nurses, and a pilot study. The tool was piloted

with 20 ED nurses not working in the study's targeted agencies (McAllister et al.,

2002b). For the McAllister and colleagues (2002b) study a survey of $n = 1008$ nurses in

major public and private hospitals was undertaken with a 35% response rate. This was

the claim for validation described by McAllister and colleagues (2002b) utilising the

study ATDSHQ. The SHAS (2007) claimed validity and reliability using test-retest

reliability. The SHAS was validated as having good stability and reliability for measuring $n = 153$ nurses' attitudes towards NSSI (Patterson et al. 2007).

4.10.2 Phase Two

The interview guide for the semi-structured over-the-telephone interviews was content validated through an expert panel that included the senior nurse educator and clinical psychiatric nurse consultant at a large Melbourne private hospital and two senior academics at RMIT University. The content of the Phase Two interview guide and suggested semi-structured questions were circulated to these experts in order to rate the relevance of the discussion content. During the validation process a review of relevant literature was conducted in order to extract the key concepts and for ongoing refinement of definitions of key constructs to enhance the interview. The panel accepted the questions without change.

4.11 Pilot Study

4.11.1 Phase One

The draft of the online survey was piloted at a large mental health private hospital in Melbourne to test the questionnaire. The researcher posted an invitation on the staff education board for potential nurse participants meeting the inclusion criteria to take part in the pilot study. After the nurses emailed their interest in participating, a meeting with all participants and the researcher was organised. The research project, including the role of the pilot study, the consent form and PLS were all explained to the participants. Pilot study participants were not included in the main research study and were informed they were excluded from the main survey.

The pilot study participants attended a second meeting with the researcher and the draft data collection instrument was distributed to them. The survey was piloted with 18 nurses (14 RNs and 4 ENs) who met the inclusion criteria (the inclusion criteria for study in addition to knowledge that pilot participants could not take part in the full research study). The time taken to complete the survey by the pilot study participants was between 20-30 minutes. For the pilot study, the instrument of data collection showed no ambiguities or misunderstandings from the participants. The survey was also reviewed by a panel of nurse educators at the same large private mental health hospital for content validity. The questionnaire was accepted by the panel without changes.

4.11.2 Phase Two

To pilot test Phase Two, the researcher undertook five face-to-face interviews at this same facility with nurses who had completed Phase One of the study. The participants volunteered their interest in participating in Phase Two. The first five volunteers were selected to be surveyed. The estimated time for the length of the interviews was underestimated (45 minutes) and altered during the study to 40-90 minutes. Following the pilot testing, the interview questioning required no structural modifications as the questions were found to be clear and engaging. This pilot interview did however, help the researcher refine the interview technique and process.

4.12 Data Collection

4.12.1 Phase One

Nurses who meet the inclusion criteria were provided with an ethics approval document, consent form, PLS and rationale for the research on their professional nursing websites during January 2013. At the end of December 2013 the Qualtrics on-

line questionnaire was stopped and the data collected was stored for data entry and analysis. The quantitative survey used in this phase of the study involved a total sample of 173 nurses. Using an online survey in this phase assisted in developing a general view of nurses' attitudes, knowledge and beliefs towards NSSI. Since there is paucity in the literature regarding nurses' attitudes and knowledge about NSSI, surveys can be an extremely important source of data (Burns & Grove, 2006).

4.12.2 Phase Two

The telephone interviews containing the semi-structured questions aimed at capturing broad conceptualisations of the experience of the nurse, and the related themes that were extracted provided meaningful insights into the participants' experiences and shared understanding of NSSI. The semi-structured questions were designed to elicit general responses about NSSI and the questions allowed open-ended questioning so that the participant was able to more deeply convey their thoughts on self-injuring behaviour.

Each participant was also given information about who to contact if they felt any distress as a result of the interview: the researcher's supervisors and/ or the participants' own general practitioner (GP). If distress occurred, the researcher would have refereed the participant to their GP. However, distress by the participants was not anticipated and did not occur, and the interview would have been stopped if any signs of distress had occurred.

The semi-structured interviews were conducted over the telephone; this is a commonly used data collection tool in health sciences research to gather information from participants (Ryan, Coughlan & Cronin, 2009). At each contact with the

participant the interview was recorded, with the participant being made aware the interview was being recorded, and the PLS and consent were repeated to the participants. The contact telephone numbers of each participant was not kept after the interview in order to maintain anonymity of the participant. The researcher offered the participants the ability to choose the place and time of the interview for the second phase. The telephone interview took place outside of clinical times to minimise disruption to the participant and their workplace duties. Interviews were audio recorded over the telephone in a hands-free setting onto a digital recorder in order to be transcribed for further analysis and investigation. Hand-made notes were also taken for each participant during the telephone interview. Although initially the target number of nurses to be interviewed in Phase Two was 30, saturation occurred at 25 nurses. No further interviews were therefore conducted.

Interviews of all 25 respondents were anonymously coded and respondents were deidentifiable. The interviews took approximately 40-60 minutes to be completed. The consent of the participants was recorded and retained by the researcher. All participants in Phase Two of the study were assured their transcripts were anonymously coded and assured that their responses were anonymous to ensure non-identification. In the transcription, the participants were labelled as 'nurse 1, nurse 2….nurse 25'. The title of the nurse being RN or EN was also noted as was whether the nurse was employed in a metropolitan or rural setting and their years of experience and gender. This appeared in the note taking and recording for example as 'Nurse 1, RN, M (male), Metro (metropolitan employment)'. No other personal information was noted in Phase Two.

4.13 Quantitative Data Analysis

In conducting the analysis of Phase One of the study, the quantitative data were processed as follows:

4.13.1 Data Coding, Entry and Cleaning

Analysing data is considered to be the most meaningful step in research. It is the process of converting raw data into meaningful information to answer the research questions (Creswell, 2007; Plano Clark & Creswell, 2008). The quantitative data was analysed using the Statistical Package for the Social Sciences (SPSS) version 21.0, IBM software package. A plan for statistical analysis was completed following consultation with the RMIT University Statistical Advisory Service. To overcome problems of missing data, each item in the questionnaire was checked for completeness. There were no missing values in the completed on-line questionnaire. Data from the Qualtrics questionnaire was checked and coded manually. All the data was entered into the SPSS version 21.0 software package. The data were reviewed extensively for any entry errors by the researcher from the data matrix. The entered data was then screened and cleaned within the SPSS application. The mean is the most frequently used way of replacing scores, as long as there is no consistent or regular pattern identified from the missing values (Hair, Black, Babin & Anderson, 2010).

Following the initial screening and cleaning of the data, the data analysis preceded in three stages. The first stage was to define the demographic characteristics of the participants for example, age, gender and qualifications. This exploration involved utilising descriptive analysis. Descriptive statistics is the term given to the analysis of data that helps describe, show or summarise data in a meaningful way such that, for

example, patterns might emerge from the data. Descriptive statistics do not however, allow conclusions to be made beyond the data that has been analysed or reach conclusions regarding any hypotheses made. Descriptive statistics are simply a way to describe data.

Descriptive statistics are very important because if raw data was presented it would be hard to visualise what the data was showing, especially if there was a large amount of data. Using descriptive statistics therefore enables the researcher to present the data in a more meaningful way, which allows simpler interpretation of the data. (Field, 2009). Descriptive statistics is the discipline of quantitatively describing the main features of a collection of information or the quantitative description itself. Descriptive statistics are distinguished from inferential statistics (or inductive statistics), in that descriptive statistics aim to summarise a sample, rather than use the data to learn about the population that the sample of data is thought to represent. This generally means that descriptive statistics, unlike inferential statistics, are not developed on the basis of probability theory (Schneider, Whitehead & Elliot, 2007). Even when a data analysis draws its main conclusions using inferential statistics, descriptive statistics are generally also presented (Schneider et al., 2007).

Some measures that are commonly used to describe a data set are measures of central tendency and measures of variability or dispersion (Schneider et al., 2007). Measures of central tendency include the mean, median and mode, while measures of variability include the standard deviation (or variance), the minimum and maximum values of the variables, kurtosis and skewness (Field, 2009).

The second stage was to analyse the responses to each item using frequency distributions (counts and percentages) to summarise the responses to each item using descriptive statistics (mean, median, and standard deviation) and to determine the reliability of the item scores. The aim of the third stage was to explore the relationships between the reliably measured scales extracted from the four sections of the questionnaire (dependant variables) and the demographic characteristics of the participants (independent variables) using inferential statistics (Field, 2009).

With inferential statistics the researcher is attempting to reach conclusions that extend beyond the immediate data alone. This analysis is used to infer from the data what the participants may think, or make judgements of, the probability that an observed difference is a dependable and not one that has happened by chance in the study. Thus inferential statistics are used to make inferences from data to more general conditions as descriptive statistics simply describe what is occurring in the data (Field, 2009).

4.13.2 Demographic Profiles

In addition to descriptive statistics, inferential statistics were used to analyse the demographic data. Descriptive statistics included means, standard deviations (S.D), ranges and frequencies for analysis of the data. Ten demographic questions were used that included: age, gender, RN or EN, level of education, mental health qualifications (or not), other nursing qualifications held, current nursing position held, years of experience, metropolitan or rural service and private or public employment. Responses were visualised using histograms. As the total scores were normally distributed, approximating bell-shaped curves, parametric descriptive statistics (for example, mean

and S.D) and parametric inferential statistics (for example, analysis of variance) were

appropriate for analysis (Field, 2009).

4.13.3 Inferential Statistics

Inferential statistics were conducted and a number of statistical tests were

utilised to answer each of the research questions. Factors were identified and an analysis

was conducted to identify items for removal and inclusion for further factor analysis.

For the variable gender, checking the assumption of equal variance (Levene's test) an

independent sample *t-test* was conducted. There was a comparison of age and years of

experience and of diploma holders with Bachelor degree holders using a samples *t-test*.

A samples *t-test* was additionally undertaken in comparing mental health educated

nurses with non-mental health educated nurses. For nursing experience the analysis

looked at the relationship between experience and different factors using Pearson's

correlation. The researcher compared the participants based on their educational

qualifications by using one-way ANOVA.

Chi-Square tests were used to analyse the demographic profiles of the

participants. The deviation between the observed frequencies and the expected equal

frequencies of participants in each mutually exclusive group (for example, age, gender,

length of experience) was computed using the Chi-Square goodness-of-fit statistic. If

the *p*-value of the Chi-Square statistic was less than 0.05 then the frequencies were

assumed to deviate from equal proportions (Field, 2009).

ANOVA was used to compare the mean values between two or more groups of

participants. The differences between the mean correct (%) scores for each groups were

visualised using error bar charts, where the bars represented mean values and vertical

lines represented the 95% confidence intervals. A *t*-test was also used to compare the mean scores between two groups; however the inferences of a *t*-test and ANOVA are exactly equivalent (because $F = t^2$, and the *p*-value is the same) so it makes no difference whether a *t*-test or ANOVA was applied in practice to compare two groups (Field, 2009).

A major problem with ANOVA is that Type II errors may arise if the group sizes are too small or highly unequal in size. A minimum number (n) of group size was necessary to preform tests. In order to test for the effects of age, gender, qualifications and length of experience, two or more categories would need to be combined together in order to ensure that there were enough participants in each group (Stevens, 2012).

In theory, the dependent variable should be normally distributed; however, ANOVA is very robust to deviations from normality. As long as the distribution frequency is approximately mound shaped and symmetrical, with the mode close to the centre, and the data are not biased by extreme outliers (that is, very large or small values at the tail ends of the distribution) then the statistical inferences obtained using ANOVA are not compromised (Hair et al., 2010), Violation of the assumption of homogeneity of variance may however, compromise the results of ANOVA. Levene's test was used to check that the variances of the dependent variable were equal across the groups.

Inferential statistics are rooted in null hypotheses (H_o) which are statements proposing that no relationship exists among the data. The following ten null hypotheses were tested using ANOVA.

- Ho1: The mean correct answers (%) did not differ significantly with respect to age.

- Ho2: The mean correct answers (%) did not differ significantly with respect to gender.

- Ho3: The mean correct answers (%) did not differ significantly with respect to qualifications of the participants.

- Ho4: The mean correct answers (%) did not differ significantly with respect to length of experience.

- Ho5: The mean correct answers (%) did not differ significantly with respect to RNs or ENs.

- Ho6: The mean correct answers (%) did not differ significantly with respect to public or private hospital employment.

- Ho7: The mean correct answers (%) did not differ significantly with respect to rural or metropolitan hospital employment.

- Ho8: The mean correct answers (%) did not differ significantly with respect to current nursing position held.

- Ho9: The mean correct answers (%) did not differ significantly with respect to other nursing qualifications.

- Ho10: The mean correct answers (%) did not differ significantly with respect to any mental health qualifications.

The decision rule was to reject the null hypothesis if $p < 0.05$ for the variance ratio (F) statistic computed by the SPSS version 21.0 software package. Rejection of the null hypothesis inferred that the mean correct answers (%) varied significantly with respect to the demographic factor, more than could be expected by chance. If $p \geq 0.05$ for the F statistic then the null hypothesis was not rejected, implying that the

demographic factor had no significant effect on the items. The prescription of $\alpha = 0.05$ meant that a Type I error could occur by chance in 1 in 20 null tests (Field, 2009).

4.14 Qualitative Data Analysis (Phase Two).

4.14.1 Transcribing Qualitative Data

Efficient data collection and documentation are essential steps in qualitative research (Malterud, 2001). The researcher firstly listened to the interviews many times. Listening to the digital audio recordings and transcribing the interviews was a detailed and lengthy process. Using a computer in analysing the qualitative data improved the efficiency in management of the data collected. Guidelines in qualitative data collection and write up to improve the quality of data collection and ensure the transcribed data are made consistently and efficiently. In this study the researcher used Word documents to write transcripts of the interviews. The data was transcribed verbatim to ensure responses of the participants were presented correctly. The interviews were transcribed within an hour of the interview taking place by the researcher so that the interview was fresh in the mind of the researcher. The transcription of each participant took approximately three to four hours.   Simple thematic analysis was used to analysis the data collected in this phase of the research study. Analysing involved a process which included discovering themes and sub-themes, describing core and peripheral elements of themes, building hierarchies of themes, applying themes or attaching them to chunks of actual text (Bernard & Ryan, 2010). After transcribing the transcript the researcher read through it several times and checked with the digital recordings, identified emerging themes that occurred and highlighted these. NVivo version 10, a qualitative data research software tool, was used to assist the researcher to manage the data.

Linking and relating of themes occurred (Holloway & Wheeler, 2010). Through the analysis process the researcher identified, coded and categorised the themes that emerged from the data. The coding process was completed through the systematic identification and categorisation of participants' responses to the semi-structured interview questions, and the codes were grouped according to content using a combination of inductive and deductive reasoning, allowing for the identification of similarities between responses (Merriam, 2009). Finally, a comprehensive review and interpretation of the data provided the conclusions of the analyses, which represented the perceptions of the group as a whole and were presented according to the relevant associated research questions. An overview of the findings, results and classification of nurse attitudes towards NSSI is identified and reviewed in Chapters 5 and 6.

4.15 Theoretical Framework

Attitudes and beliefs are a reflection of collective experiences that accumulate within individuals and society and have a strong influence on people. People, therefore, develop attitude positions that can be either negative, positive or neutral towards a specific situation, choice, object or potentially another person. An individual's attitude is the result of the weightings given to a certain behaviour. Thus a behaviour can be viewed as positive or negative, while also weighing up the social pressure commitment within the decision action (Ajzen, 2005).

In philosophy, a theory can be used to analyse how humans make decisions to achieve their desired outcome. Similarly, in clinical nursing practice, a theory can enhance understanding of how nurses care for individuals who self-injure. One way of understanding the process of thoughts nurses undergo when making decisions and delivering care is through the theory of reasoned action (TRA) (Ajzen, Heilbroner,

Fishbein & Thurow, 1980). This theory postulates that nurses undergo a process of weighing up their skills and the benefits of their action. It is only after being convinced of the outcome that nurses decide to take the appropriate actions. Thus TRA offers a process model to predict an individual's behavioural reactions. In relation to nurses caring for self-injury individuals, their knowledge and attitudes, as well as their beliefs and behaviours towards self-injury, are highly shaped by the socio-cultural environment in which they work. Thus TRA deals with individuals' attitudes and their behaviour towards a given situation, while considering a number of important factors involved in the process (Ajzen et al., 1980). The TRA, as the theoretical background for the current research, therefore, facilitates understanding of the attitudes and behaviour of nurses caring for self-injury individuals. Prior to choosing this particular theory, the researcher reviewed a number of potential theoretical models to underpin the current research. The TRA was deemed appropriate to expand theoretical understanding of the clinical setting, attitudes and beliefs of nurses caring for self-injury and other significant background factors. In addition, the TRA enhanced the researcher's understanding of the study's findings by highlighting key variables, guiding and leading the discussion, and facilitating the conclusions.

4.15.1 The Theory of Reasoned Action

Historically, the TRA has been used in a number of settings that investigate participants' intentions to act within a given scenario, as well as to predict their attitudes and behaviours in social research. For instance, the TRA has been widely used to forecast and explain health behaviours, including smoking habits, clinical reasoning, pain management behaviour, intention to leave, and social participation (Ajzen, 2005; Higgs, 2008). In clinical nursing practice, the TRA has been applied to

evaluate the quality of nursing care to drug addicts (Natan, Beyil & Neta, 2009), and nurses' intentions to use physical restraints with older people (Werner & Mendelsson, 2001). Ajzen and colleagues (1980) TRA is a model for predicting behavioural choices in a broad range of settings.

The TRA states that behaviours result from behavioural intentions which, in turn, are based on attitudes and beliefs. According to this theory, knowledge and attitudes are a reflection of past experiences that have been developed over time and have a strong influence on individual behaviour and decision making. Individuals may develop, therefore, varying attitudinal positions towards a given scenario, choice, object or person. The outcome behaviour results from conclusions formed from previous experiences with similar situations; thus, a behaviour can be viewed as negative, neutral or positive (Ajzen, et al., 1980). Similarly, nurses who deal with self-injury individuals in everyday practice constantly weigh their abilities and knowledge to effectively assess and manage such people. Over time, nurses develop attitudinal positions towards their experiences, and these can be reflected in their management practice and clinical decision making. Integral to the TRA is the social pressure associated with decisions, which can also affect the decision (intention) and the behaviour (Ajzen, 2005).

An advantage of the TRA is that it offers a process map that allows for the anticipation of people's behavioural actions. The surrounding factors that may influence individuals' decisions and intentions to behave in a particular manner are considered influential factors. For instance, the social surroundings where people live or work have a strong influence on individual attitudes, as they are part of those surroundings. Their behaviours are formed within the limitations of their environment.

Thus, nurses' attitudes and behaviours in relation to caring for individuals who self-injury are shaped, to a large extent, by the socio-cultural settings where they work and live. Accordingly, nurses have strong behavioural influencing factors that must be considered. Hence, the work environment plays a key role in shaping and influencing nurses' attitudes, behaviours and, ultimately, their decisions about care (Ajzen, et al, 1980). In other words, the interpretation of an individual who self-injures, as well as the decisions made in relation to best management practices, are all made within the social limits of that given environment.

A key component in the TRA is the person's intention to accomplish certain behaviours, which is the only direct predictor of that behaviour. According to this model, two independent determinants of intention exist: attitude towards the behaviour, and the subjective norm. Attitude towards the behaviour refers to the level to which an individual has a positive or negative perception of the specified behaviour. The subjective norm indicates the social pressure factor; that is, the likely social pressure to be considered when taking the action (Ajzen et al., 1980). The TRA entails the decision-making process, as well as the intentions and behavioural actions of the individual: this practice is complex and never occurs in a vacuum. The consequences of the behaviour affect the belief about it and, therefore, the intention to act. The subjective norm is the result of social awareness; namely, what others in the society may consider legitimate (Ajzen et al., 1980).

The TRA suggests links between attitudes and behaviour, as shown in Figure 4.2, with the actions being controlled by behavioural intentions. Other variables that can influence the belief and behaviour of individuals include personal profiles, type of task intended, system design (work policy), and past experiences (Ajzen et al., 1980). However, the TRA suggests that in certain circumstances related to external variables,

a positive intention may not lead to the intended behaviour. These variables may relate to personality, educational, social, religious or cultural factors. It is not clear how these factors can directly or indirectly affect the behaviour within the model, as they are considered external and embedded within the background of the theory. Nevertheless, by understanding intentions, based on cognitive components (such as personal beliefs about the behavioural determinants and perceptions of subjective norms), nurses' attitudes can be best understood. The TRA could provide a basis to examine and correlate these variables to understand nurses' attitudes about their practice. Thus, strategies can be formed to address nurses' deficiencies, to improve individual outcomes, and their overall satisfaction while caring for self-injury individuals.

Figure 4.2. *A schematic map of TRA highlighting the key factors that contribute to*

behaviour (Ajzen et al., 1980).
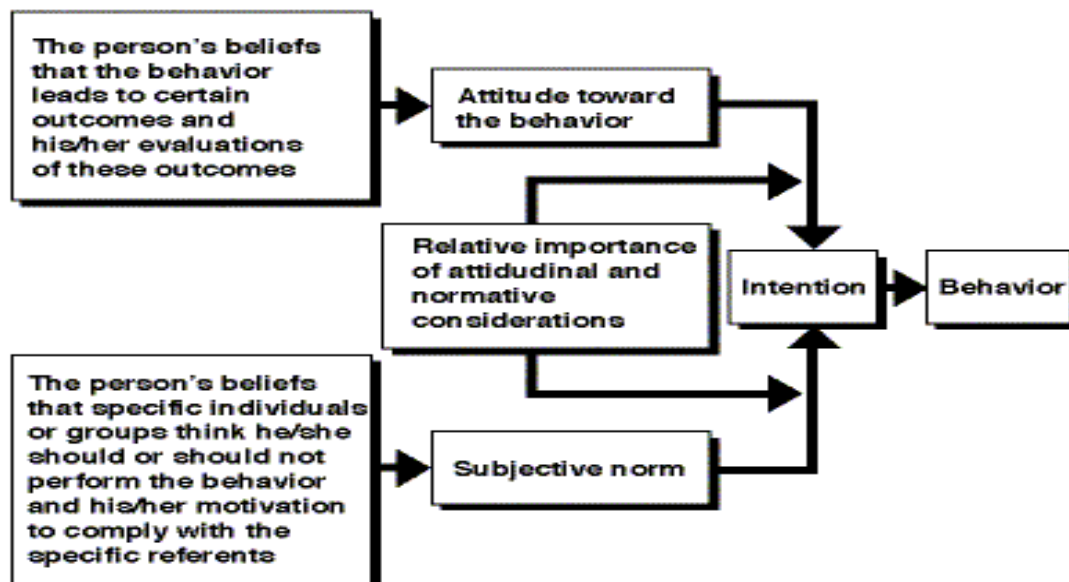
4.16 Rigour

The concept of rigour has its roots in science, however in qualitative research it

refers to the thoroughness and competency of research. The term rigour has become a

very important tool in evaluating and analysing research projects. In qualitative enquiry,

rigour is demonstrated by enabling the confirmation of the discovered information

(Holloway & Wheeler, 2010). Rigour is further defined as the researcher's attempt to

use as tight a design as possible (Grbich, 1999). In particular, extra efforts have been

taken during data collection in the over-the-telephone interviews, analysis of transcripts

and reporting of emerging themes and sub-themes to ensure presentation of data in a

concise, transparent and trustworthy manner. Several procedures have been used to

increase rigour in mixed methods research. For example, triangulation is commonly

used as a manner in validation of data (Creswell & Miller, 2000). Qualitative

researchers believe that rigour is a concept that has been defined and utilised as the

means by which qualitative research has been shown to have integrity and competence (Holloway & Wheeler, 2002). Rigour requires qualitative research to be conducted at a high standard and seeks details, accuracy, trustworthiness and credibility (Holloway & Wheeler, 2010). The researcher's characteristics and background will influence the research. Hence, rigour in qualitative research is demonstrated through the researcher's attention to and confirmation of information discovery (Streubert & Carpenter, 2011). There are different terms that describe the process that leads to rigour in qualitative research. Operational techniques supporting the rigour of the study include credibility, dependability, confirmability and transferability (Streubert & Carpenter, 2011). The criteria for judging the rigour of qualitative research include: credibility, dependability, confirmability and transformability. These criteria will be highlighted further in the following sub-sections.

4.16.1 Reliability

Reliability in qualitative research refers to the consistency of the research instrument as is so in quantitative research methods. It is also linked to replicability, that is, the extent to which the study is repeatable and produces the same results when the methodology is replicated in similar circumstances and conditions (Holloway & Wheeler, 2002). Rigor in qualitative research is demonstrated through the researcher's attention to and confirmation of information discovery (Streubert & Carpenter, 2011). There are different terms that describe the process that leads to rigour in qualitative research. Operational techniques supporting the rigour of the study include credibility, dependability, confirmability and transferability (Strubert & Carpenter, 2011).

As the researcher is the main instrument of data collection and interpretation in qualitative research, the research can never be wholly replicable.

4.16.2 Trustworthiness

Trustworthiness in qualitative research means methodological soundness and adequacy. Researchers make judgements of trustworthiness possible through developing dependability, credibility, transferability and confirmability. The most important of these is credibility which must include objectivity (Streubert & Carpenter, 2011).

4.16.3 Credibility

Rigour, reliability and trustworthiness include activities that increase the probability that credible findings will be produced (Streubert & Carpenter, 2011). Credibility, similar to internal validity in quantitative research, is the element that allows others to recognise the experiences contained within the study through the interpretation of participants' experiences. Credibility includes any measures taken to increase the chances of producing credible findings as well as establishing a logical research method (Speziale et al., 2011). Further credibility creates confidence in qualitative data and interpretation of data (Morse, 2003). Another significant technique commonly applied by researchers is to report the findings of the investigation back to the participants for them to check if what is recorded relates to their experiences. As part of this process, participants may be asked to evaluate their responses against the overall finding or themes (Creswell, 2007). This was not undertaken with the participants in this study. Credibility in this study was achieved by using a number of other strategies. This included logically establishing the research method, digital recording of the over-the-telephone interviews and use of a pilot group. Quotes from the interviews, the results, were then used in the writing up of the analysis. In addition, member checking occurred through the supervisors checking the developing analysis from the transcripts.

4.16.4 Dependability

Dependability, related to reliability in qualitative research analysis occurs when another researcher can follow the decision trail used by the researcher (Thomas & Magilivy, 2011). This occurs in order that another researcher could replicate the study by following the audit trail. An audit trail for this research was achieved by describing the specific purpose of the study; discussing how and why the participants were selected; describing how the data were collected; describing how the data were reduced and transformed for analysis; discussing the interpretation and presentation of the research findings; and finally, communication of the specific techniques used to determine the credibility of the data.

4.16.5 Confirmability

Confirmability is a process of enabling other researchers to follow and audit the research. That is, by being as clear and objective in conducting, documenting, managing and reporting the research process so that drawn conclusions can be traceable and confirmable (Speziale et al., 2011). It refers to the evidence for research goals and evidence of objectivity. Although only the involved researcher who performed the data collection can confirm the findings (De Witt & Ploeg, 2006), confirmability is the confirmation of findings, conclusion and recommendations by the data obtained (Hoskins & Mariano, 2004). Confirmability similarly to credibility occurs when credibility, transferability and dependability have been established. The qualitative research in this study was reflective, maintaining a sense of awareness and openness to the study and openness, requiring a self-critical attitude on the part of the researcher about how the researchers own preoccupations affect the research.

In order to ensure confirmability for this study, the researcher had an audit trail, digital recordings of the interviews, detailed handwritten notes, used member checking and NVivo.

4.16.6 Transferability

Transferability is the likelihood that the findings of the study can be applied to a similar population or situation, and how significant they are to concerned others (Speziale et al., 2011). Further, transferability refers to how the findings are generalised from samples to the whole group (Holloway & Wheeler, 2010). Unlike quantitative research measures where the generalisability of results can be determined by the author(s), deciding the transferability or 'fittingness' of qualitative research findings to other settings is the responsibility of potential users of the findings not the author(s) (Graneheim & Lundman, 2004). This is because the original authors are not fully aware of the implementation scenarios (Saini & Shlonsky, 2012). It can therefore be concluded that qualitative researchers must be thoughtful in order to maximise potentials of their work. Unless the author provides a rigorous report of their investigation, the transferability of their findings could be otherwise diminished. In order to achieve this for this study, the participants in Phase Two were asked the same semi-structured questions in order to represent a variety of different responses and to provide rich contextual data. Transferability was achieved by determining the extent to which the findings of a particular participant was made to the next participant. That is, how the researcher determines the extent to which the findings of this enquiry have applicability in other contexts or with other participants (Thomas & Magilivy, 2011).

4.16.7 Summary of Rigour

No single or unitary concept of validity exists in qualitative research. Validity in qualitative research has different implications and applications (Holloway & Wheeler, 2010). Research needs to be systematic, well organised and trustworthy. Trustworthiness relates to the questions asked as having rigour that has measurement and objectivity (Holloway & Wheeler, 2010). Does the instrument measure what it proposes to measure? In interpretation, researchers are at risk of imposing their own ideas or distort the meaning of the participants' accounts therefore, it is important to accurately listen to what has been said. Trustworthiness means methodological soundness and accuracy, the most important characteristic being credibility (Holloway & Wheeler, 2010). In this study, rigour and trustworthiness have been displayed through the researcher's attention to detail for listening and transcription.

4.17 Triangulation

Triangulation in research refers to "combining multiple theories, methods, observers and empirical material, to produce a more accurate, comprehensive and objective representation of the object of study" (Silverman, 2011, p369). Triangulation is a technique researchers use to strengthen the rigour of research by examining the topic under study from different perspectives. In qualitative research design, the most common application of triangulation is the use of multiple methods (for example, questionnaire and over-the-telephone interviews) (Silverman, 2011). If the two employed methods resulted with similar findings then it is assumed that the validity of those findings had been already established. This is because the two methods employed in triangulation used difference sources of information and came up with similar conclusions (Cresswell & Plano Clark, 2011).

Furthermore, triangulation employs comprehensive, multi-perspective views and procedures to reduce potential biases within the research design (Patton, 2002). However, different sources of information are not necessarily equivalent, since what participant's state at interview is not always the same as what they actually do in reality, and may also not be consistent with what they respond to on the questionnaire (Bonolan et al., 2011). Nevertheless, the researcher in the current study developed an information and questioning interview guide for the Phase Two interviews which was based on responses to Phase One and from both the literature and the researchers own extensive experience.

Triangulation postulates varied techniques of exploring the same phenomenon and adds credibility and confidence in the conclusions drawn from the study. Essentially there are two styles of triangulation, triangulation of sources and analyst triangulation (Creswell, 2007). Accordingly, triangulation is a method of cross-checking data from multiple sources in order to search for regularities in the research data (O'Donoghue & Punch, 2003). Thus, triangulation is defined as the sources of checking the consistency of various data sources within the similar method (Patton, 2002). The researcher used triangulation in order to compare the quantitative and qualitative perspectives of the nurses' attitudes, knowledge and beliefs towards self-injuring individuals.

4.18 Ethical Considerations

An ethics application for Review of Negligible and Low Risk Research was submitted in December 2011 and granted by the College Human Ethics Advisory Network (CHEAN) at RMIT University (refer to Appendix A). The combined ATDSHQ (McAllister et al., 2002b) and the SHAS (Patterson et al., 2007) surveys sought to attract participants on an anonymous basis so as to obtain a true picture of the

participants' attitudes and knowledge about NSSI and their beliefs towards individuals who engage in such behaviour. Informed consent was achieved using a clear PLS and consent was obtained for this study from participation on the website. The participant could withdraw at any time during the survey and questionnaire. The PLS and consent form were placed on each of the professional organisation's websites offering a full explanation of the study, its aims and benefits to future nursing practice. There were no identified risks and participants were informed that they could cease participation at any time (Burns & Grove, 2006). The names of the researcher's supervisors and the name of the researcher and contact details were easily identifiable on the PLS if the participant required clarification of the study, became distressed or needed assistance.

Informed consent meant the researcher provided potential participants with the complete information about the research study, allowing the participant to decide whether to participate in the study or not (Schneider et al., 2007). The aims of the study were explained in ordinary English avoiding academic terms that nurses may not be familiar with. In this research study consent forms (refer to Appendix C) were supplied to the participants in Phase One over the internet and in Phase Two read out and confirmed on a digital recorder. Consent was implied in Phase One by the participant completing the anonymous online survey. Participants were informed that they were able to withdraw at any time from the research study prior to completing the interviews in Phase Two. Participants were assured their responses would not be shared with any other individuals other than the researcher and her supervisors from RMIT University.

Numerous ethical issues have been raised in using the internet for surveys: breaches of confidentiality due to the nature of online communications, loss of unauthorised access, and the right of all participants to access personal data

(Liamputtong, 2009). Participants were informed of these potential issues in the PLS. As this data collection was completely anonymous unlawful interception was avoided and all participants were anonymous.

4.19 Confidentially and Anonymity

Confidentiality is more problematic in online research than in conventional research (Liamputtong, 2009). The researcher may make use of pseudonyms or anonymous coding of participants to avoid breaches of confidentiality and anonymity. In the emails sent to the researcher for participation in Phase Two of the study, real names, user names, domain names and signatures were adjusted to disguise the true identity of the participants and an anonymous code was administered to each of the 25 respondents.

Informed consent is an essential part of the research endeavour. The participants must be given comprehensive and correct information about the research, their participation, the assurance of confidentiality and anonymity, and their rights before agreeing to take part in the research study. Online is no exception and because of its nature is even more important than in conventional research methods (Liamputtong, 2009).

Individuals tend to treat online questionnaires in an unguarded manner. In sensitive research such as nurses' attitudes towards self-injury, this may involve highly personal information and the researcher was cautious about this aspect. It was explained that all results would be only reported as aggregate data with general themes so that no individual participant or their workplace could be identified.

4.19.1 Data Record Keeping and Security of Research Data

Walsham (2006) points out that it is imperative to the integrity of the study that all material collected for the research project is kept confidential. Therefore, transcriptions, notes, and data analysis notes were kept in a locked filing cabinet at RMIT University. During the research process, all computers were password protected and only authorised individuals were able to access the research data. Files were saved and viewed only by the researcher and the researcher's supervisors. Backup files were placed on a flash drive and the RMIT University drive, which were password protected during the conduct of the study. All demographic information was also unidentifiable, as this data was anonymously coded. Moreover, on completion of the research, data and records were labelled and stored in the research and data storage department area at RMIT University. The research data will be stored for a period of up to five years before being destroyed. All data will be shredded and erased five years post completion of the study as per RMIT University guidelines once permission to destroy records is provided by the Head of the Department (National Statement on Ethical Conduct in Human Research, NHMRC, 2015).

4.20 Summary

A comprehensive picture of the research methodology has been outlined in this chapter to understand nurses' attitudes, knowledge and beliefs towards individuals who engage in NSSI and self-injuring behaviour in general. The chapter has detailed and structured all the steps taken to successfully complete the study. A mixed methods design was utilised to answer the research questions and guide this study. Quantitative and qualitative data were collected to determine the factors that lead to nurses' holding a positive or negative attitudes towards self-injuring individuals. Both quantitative and

qualitative data analysis provided an efficient way in which to answer research questions and provide rich data. Quantitative data collection and analysis in Phase One provided numerical information which was followed by a qualitative data collection in Phase Two to analyse and provide an understanding of NSSI and nurses' attitudes, knowledge and beliefs regarding this phenomenon. An RMIT University statistician guided the statistical analysis of quantitative data.

Data were collected in two concurrent phases. The first phase involved a survey that elicited information on demographic data, and the attitudes, knowledge and beliefs that nurses hold towards self-injury using a combination of the ATDSHQ (McAllister et al., 2002b) and the SHAS (Patterson et al., 2007). Descriptive and inferential statistics were employed to describe and to analyse data from this phase. Phase Two data collection was based on over-the-telephone semi-structured interviews. A simple thematic analysis description was introduced for the analysis of the data collected in Phase Two of this research study. In addition the chapter described the study setting, the sample strategy of the study, the instruments used for data collection, telephone interviews, validity and reliability in Phase One, rigor, reliability and trustworthiness in Phase Two and the ethical considerations for the study.

Confidentiality, anonymity and protection of the participants human rights were carefully managed during the research process as advised in the human research ethical guidelines. Ethical principals have been strictly adhered to throughout planning and implementation of the study. Managing data storage of the information collected in this research study was discussed in this chapter and are as described in the human research ethical guidelines. The findings from the analyses of the quantitative data will be presented in Chapter 5, and the analyses of the qualitative data in Chapter 6.

Chapter 5: Quantitative Analysis

5.1 Introduction

This chapter will discuss the results of the analysis of quantitative data gained through administration of an online survey using the self-injury attitude scale for a sample of 172 nurses. Firstly there is a discussion of the process of data analysis including the validity and reliability of the data collection instrument. This is the followed by a presentation of the results, including the demograghics and the survey scores.

5.2 Instrument Scoring and Variable Calculation

To measure attitude and knowledge of a sample of nurses with regard to individuals engaging in intentional self-injury, data resulting from the 43-item survey that was a combination of the SHAS (Patterson et al., 2007) and the ATDSHQ (McAllister et al., (2002b) were used. The variable of attitude and knowledge of non-suicidal self-injury was calculated through a summation score of the 43 items. Following the survey scoring directions, the survey items 4-5, 13, 16, 19, 29-31, 33-35, and 37-43 were scored on the scale as was presented in the survey (1=strongly agree to 4=strongly disagree), while the following items were reverse scored (that is, strongly agree = 4, agree = 3, disagree = 2, and strongly disagree = 1): items 1-3, 6-12, 14-15, 17-18, 20-28, 32, and 36. The result of the scoring technique ensured that a high score would indicate a positive attitude and knowledge level and a low score would indicate a negative attitude and low level of knowledge. The possible range of scores was from a low of 43 to a high of 172, with a mid-score of 107.5 representing neutrality.

5.3   Validity and Reliability of the Instrument

The validity and reliability of the data collection instrument is used to demonstrate that the data gathered provides evidence that the inferences made with regard to the study population are appropriate and that the instrument demonstrates consistency of results. The survey instrument for the study was developed from combining several demographic questions with the combination of items from the ATDSHQ (McAllister et al., (2002b) and the SHAS (Patterson et al., (2007). Reliability of the instrument is given by calculation of the Cronbach's alpha value. Determination of validity of the instrument was achieved through reporting of prior determined validity from previous literature, as reported in Chapter 4, as well as the use of exploratory factor analysis.

5.3.1   Cronbach's Alpha

The Cronbach's alpha for the 43 item scale was calculated at 0.901, demonstrating reliability of the instrument. Reliability was additionally evaluated through analysis of the individual survey themes of beliefs, knowledge, moral views, and attitudes, as determined by the instrument authors (McAllister et al., 2002b; Patterson et al., 2007). This analysis revealed Cronbach's alpha values of 0.639 for beliefs (13 items), 0.686 for knowledge (9 items), 0.718 for moral views (9 items), and 0.809 for attitudes (10 items).

5.3.2   Exploratory Factor Analysis

Exploratory factor analysis was used to support evidence of validity of the combined survey instrument. Factor analysis provides evidence of construct validity through identifying stable dimensions of the human components being tested

(Guilford, 1948), such that factors replace constructs to support the use of factoring to test hypotheses about those constructs (Eysenck, 1950). The exploratory factor analysis using a maximum likelihood extraction method with an oblique rotation was used to support the content and construct validity of the scaled items through a determination of the number of factors that underlie the set of variables and determination of the factor correlations (Eysenck, 1950).

The results of the exploratory factor analysis demonstrated a total of 11 factors with eigenvalues exceeding 1.0 and accounting for 65.9% of the variance of the construct (see Table 5.1). However, when visualised on the scree plot (Figure 5.1), only the first four factors demonstrate to be above the bend (the point at which the curve of decreasing eigenvalues change from a steep line to a flat gradual slope), with 44% of the variance of the construct accounted for by these four factors. In addition, 24% of the variance of the construct is accounted for by the first factor alone. Therefore, the factor analysis suggests that the instrument measures at least four dimensions, consistent with the four survey themes of beliefs, knowledge, moral views, and attitudes related to self-injury, as set by the instrument authors (McAllister et al., 2002b; Patterson et al., 2007), supporting construct validity (Refer Table 5.2, factor loadings).

Table 5.1. *Total Variance Explained*

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.298	23.948	23.948	9.815	22.826	22.826
2	3.803	8.845	32.793	3.336	7.759	30.585
3	2.534	5.893	38.686	2.078	4.832	35.416
4	2.239	5.207	43.894	1.771	4.120	39.536
5	1.680	3.908	47.802	1.197	2.783	42.319
6	1.676	3.898	51.700	1.073	2.496	44.815
7	1.455	3.384	55.084	0.948	2.205	47.020
8	1.284	2.987	58.071	0.896	2.084	49.104
9	1.223	2.845	60.916	0.830	1.931	51.035
10	1.095	2.547	63.463	0.617	1.434	52.469
11	1.031	2.399	65.861	0.610	1.418	53.887
12	0.932	2.169	68.030			
13	0.881	2.049	70.079			
14	0.848	1.972	72.051			

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
15	0.799	1.857	73.908			
16	0.766	1.782	75.690			
17	0.751	1.747	77.437			
18	0.707	1.645	79.082			
19	0.657	1.528	80.610			
20	0.638	1.485	82.095			
21	0.605	1.407	83.502			
22	0.589	1.369	84.872			
23	0.578	1.344	86.215			
24	0.544	1.265	87.481			
25	0.513	1.194	88.674			
26	0.451	1.049	89.723			
27	0.417	0.969	90.692			
28	0.404	0.940	91.632			
29	0.380	0.883	92.515			

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Factor	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
30	0.350	0.814	93.329			
31	0.327	0.760	94.089			
32	0.305	0.708	94.797			
33	0.290	0.675	95.472			
34	0.265	0.616	96.089			
35	0.262	0.608	96.697			
36	0.245	0.570	97.267			
37	0.212	0.493	97.759			
38	0.197	0.458	98.217			
39	0.182	0.423	98.640			
40	0.177	0.412	99.053			
41	0.149	0.346	99.399			
42	0.135	0.313	99.711			
43	0.124	0.289	100.000			

Note. Extraction Method: Maximum Likelihood.

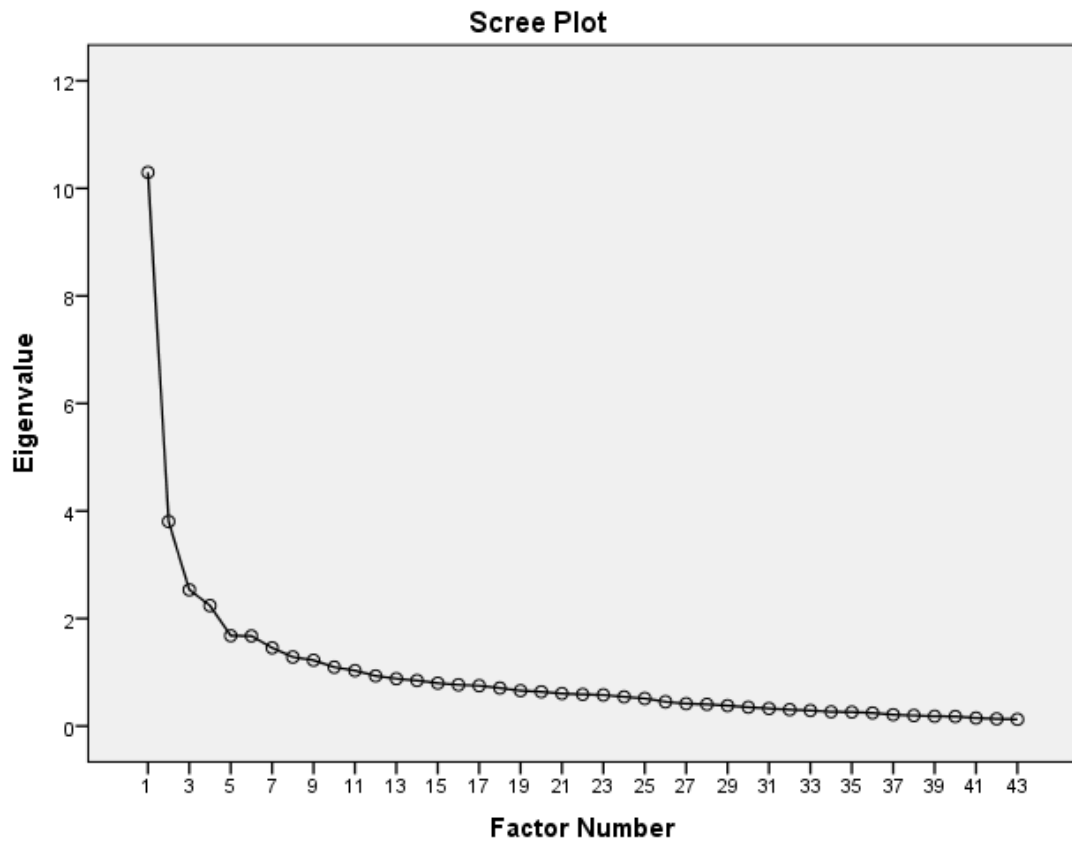Figure 5.1. *Scree plot of eigenvalues from factor analysis.*

Table 5.2. *Factor Loadings*

Comp-onent	1	2	3	4	5	6	7	8	9	10	11
1	0.693	0.437	0.221	0.178	0.290	0.308	0.079	0.220	0.120	0.010	0.021
2	0.187	-0.462	0.497	0.132	-0.369	-0.037	0.447	0.233	-0.215	-0.199	-0.097
3	0.023	-0.093	-0.406	0.851	-0.065	-0.029	0.093	-0.060	-0.080	0.003	0.278
4	-0.607	0.316	0.493	0.233	0.371	0.071	0.228	-0.003	-0.144	-0.026	0.137
5	-0.023	-0.323	0.270	0.106	0.056	0.058	-0.494	0.359	-0.050	0.622	0.205
6	-0.111	0.223	0.118	0.295	-0.184	-0.458	-0.074	0.227	0.513	0.091	-0.515
7	0.244	0.060	0.377	-0.007	-0.101	-0.483	-0.108	-0.546	0.163	0.023	0.463
8	0.023	0.383	-0.173	-0.178	-0.297	-0.203	0.459	0.114	-0.283	0.588	0.112
9	0.039	-0.383	-0.019	0.013	0.365	0.141	0.433	-0.383	0.357	0.431	-0.227
10	-0.198	0.100	0.067	-0.029	-0.530	0.545	0.065	-0.019	0.523	0.023	0.297
11	0.041	0.165	0.180	0.203	-0.297	0.305	-0.267	-0.505	-0.372	0.177	-0.469

5.4   Quantitative Results

5.4.1   Demographics

The study sample included a total of 172 nurses representing a variety of demographic characteristics. Demographic variables collected on the survey instrument included gender, age, whether the nurse was a Registered Nurse (RN) or an Enrolled Nurse (EN), whether the nurse had obtained a mental health qualification,

years of work experience as a nurse, whether the participant worked in a public or

private facility, and finally, whether they were employed in a metropolitan or rural

location. Of the sample, the majority were female (76.7%), RNs (88.4%), and between

the ages of 40-59 (62.8%). In addition, the majority of the participants (62.8%)

reported 16 years or more of nursing experience. Pertaining specifically to mental

health nursing, 114 of the participants (66.3%) held a mental health qualification and

of those, nearly 41% had 16 or more years of experience specific to mental health

nursing. Table 5.3 provides the descriptive statistics for the individual demographic

characteristics as discussed, which are given as categorical demographic variables for

the sample.

Table 5.3 *Participant Demographic Frequency Data*

		n	Percent
Gender	Male	40	23.3
	Female	132	76.7
Age	22-39	49	28.5
	40-59	108	62.8
	60+	14	8.1
	Missing	1	.6
RN or EN	RN	152	88.4
	EN	20	11.6
General nursing experience	0-11 months	3	1.7
	1-3 years	10	5.8
	4-6 years	19	11.0
	7-10 years	13	7.6
	10-15 years	19	11.0
	16+ years	108	62.8
Mental Health Qualification	yes	114	66.3
	no	58	33.7
Years Mental Health Nursing Experience	0	29	16.9
	< 12 months	13	7.6
	1-5 years	21	12.2
	6-10 years	19	11.0
	11-15 years	20	11.6
	16 + years	70	40.7

In addition, demographic data were obtained in terms of the nurse sample work location and facility type. Among the sample, the majority of participants indicated working in a public facility (83.1%) and in a metropolitan location (70.9%). Table 5.4 provides the descriptive statistics in terms of frequency for these categorical variables.

Table 5.4 *Descriptive Statistics for Location of Nursing Facility and Facility Type*

	Frequency	Percent
Location of Facility		
Metropolitan	122	70.9
Rural	49	28.5
Missing	1	0.6
Total	172	100.0
Facility Type		
Public	143	83.1
Private	28	16.3
Missing	1	0.6
Total	172	100.0

Exploring the demographic variables across the two groups of interest for this study, MHE and non-MHE nurses, identified any significant differences between the two groups. Looking at gender and MHE and non-MHE status, a cross tabulation of the two categorical variables revealed a significant relationship ($p = 0.004$), indicating that a strong majority of males held a mental health qualification (85%), compared to 61% of the female nurses in the sample (see Table 5.5).

Table 5.5. *Comparison of Gender and Mental Health Qualification*

		Mental Health Nursing Qualification		Total
		yes	no	
Gender	male	34	6	40
	female	80	52	132
Total		114	58	172

Note. Chi square = 8.173, df = 1, p = 0.004

Cross tabulations of age groups (chi square = 0.184, p = 0.912), RN or EN status (chi square = 1.288, p = 0.256), and general nursing experience/years worked (chi square = 10.325, p = 0.067) failed to reveal any statistically significant relationship with mental health nursing qualification, with p-values over 0.05. Comparison of years of mental health nursing experience however, demonstrated a predictable relationship (refer to Table 5.6), with a significant chi square (p = 0.000).

Table 5.6. *Cross Tabulation of Years Mental Health Nursing Experience and Mental Health Qualification*

| | | Mental Health Nursing Qualification | | |
		Mental Health Qualification	No Mental Health Qualification	Total
yrs of mental health nursing experience	0	0	29	29
	< 12 months	1	12	13
	1-5 years	17	4	21
	6-10 years	14	5	19
	11-15 years	18	2	20
	16 + years	64	6	70
Total		114	58	172

Note. Chi square =104.29, df = 5, p = 0.000

Cross tabulations of these same variables with the EN versus RN status in order to reveal any differences in the demographic variables according to nursing status (Table 5.7), revealed no statistically significant relationships with gender (p = 0.186), age (p = 0.389), years of experience (p = 0.074), and years of mental health experience (p = 0.338).

Table 5.7. *Chi Square Values for Demographic Variables by Nursing Status (EN/RN)*

Variable	Chi Square	df	p
Age	1.888	2	0.389
Gender	1.749	1	0.186
Years of general nursing experience	10.032	5	0.074
Years of mental health nursing experience	5.681	5	0.338

5.4.2   Research Question 1

The first research question examined the attitudes of MHE and non-MHE nurses toward NSSI. This research question was perhaps better addressed using the qualitative research data, but addressing this research question through the quantitative data, the overall score of the self-injury attitude scale was examined among both MHE and non-MHE nurses. The nursing groups were defined as MHE or non-MHE according to whether they had mental health nursing qualification or not. The cumulative attitude scores for the entire sample ranged from 106 to 163 with a mean score of 130.30, a standard deviation (*SD*) of 12.0, and 95% CI (128.33, 132.27). Scores for nurses with a mental health nursing qualification demonstrated a mean of 130.78 (*SD* 12.1) and for nurses without a mental health nursing qualification, a mean of 129.26 (*SD* 11.9). Thus, the mean scores for the entire sample, as well as for both the MHE nurses and non-MHE nurses were in the positive attitude range of possible scores, as the calculated neutral score over all 43 items was 107.5 (based on a possible range of scores from 43 to 172, as noted previously). Figures 5.2 and 5.3 illustrate the

distribution of the participant sum scores. On visualisation, the data appear normally

distributed.

Figure 5.2. *Histogram of sum survey score data obtained from all participants*
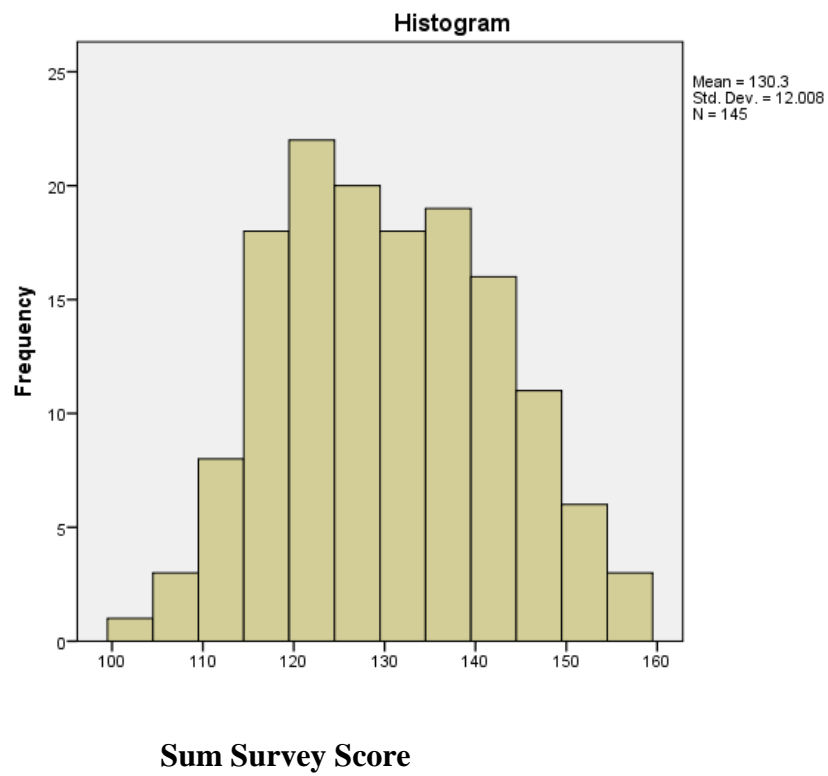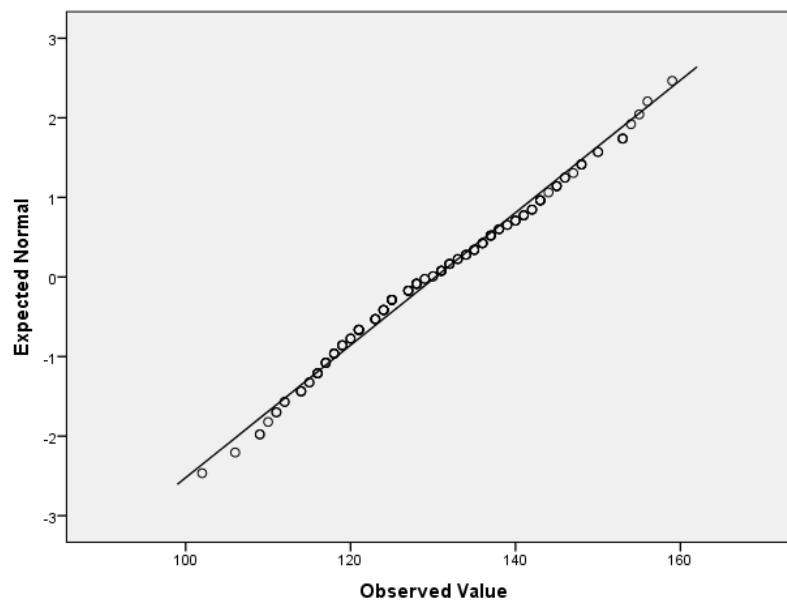

Sum Survey Score

Figure 5.3. *Normal Q-Q Plot of the Sum survey score data for all participants*

In addition, graphs were constructed for the two groups of nurses of interest to the study: those with mental health qualification and those without mental health qualification. Graphed data for the nurses with mental health qualification appears to be approximately normally distributed (see Figures 5.4 and 5.5), with a non-significant Shapiro-Wilk normality test (p = 0.783), supporting this assumption.

Figure 5.4. *Histogram of sum survey score data for participant group with mental health qualifications*

Histogram

for Q5= Mental Health Qualification

Mean = 130.78
Std. Dev. = 12.09
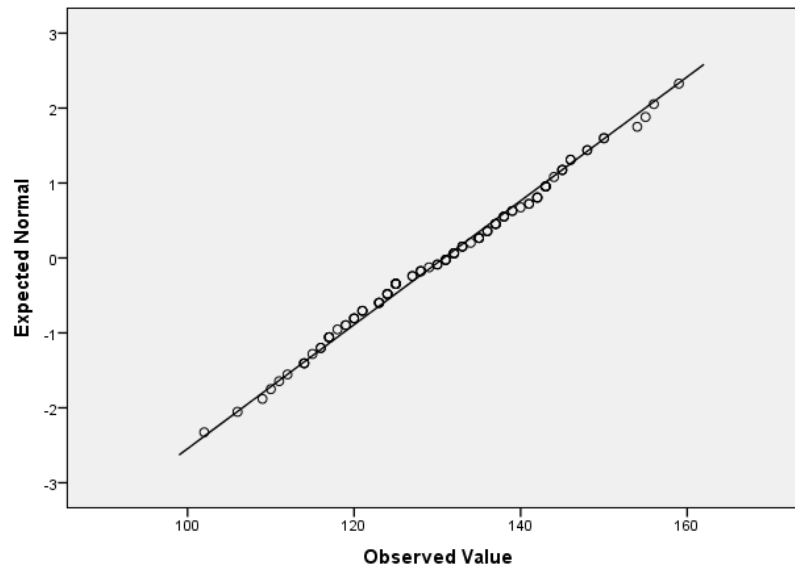N = 99
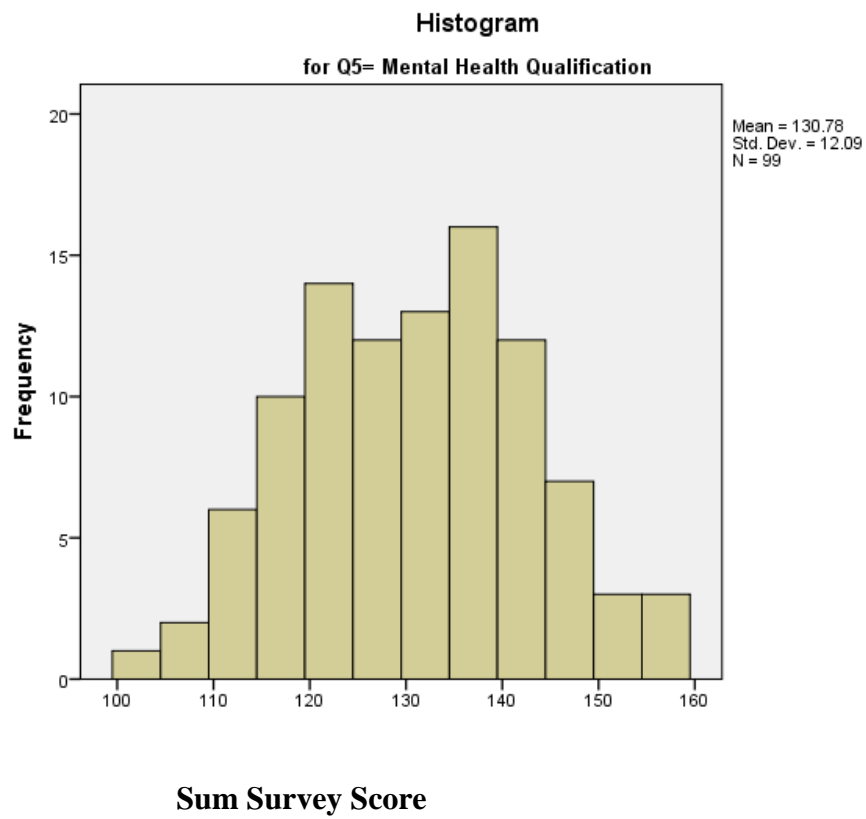
Sum Survey Score

Figure 5.5. *Normal Q-Q plot of Sum of survey score data for participants with mental health qualification*

From the graphs for the nurses without mental health qualification, the normality of the data distribution was less obvious on visual examination (Figures 5.6 and 5.7). However, the Shapiro-Wilk test supported the assumption of normality with a p-value of 0.072, failing to demonstrate a significant departure from normality of the distribution.

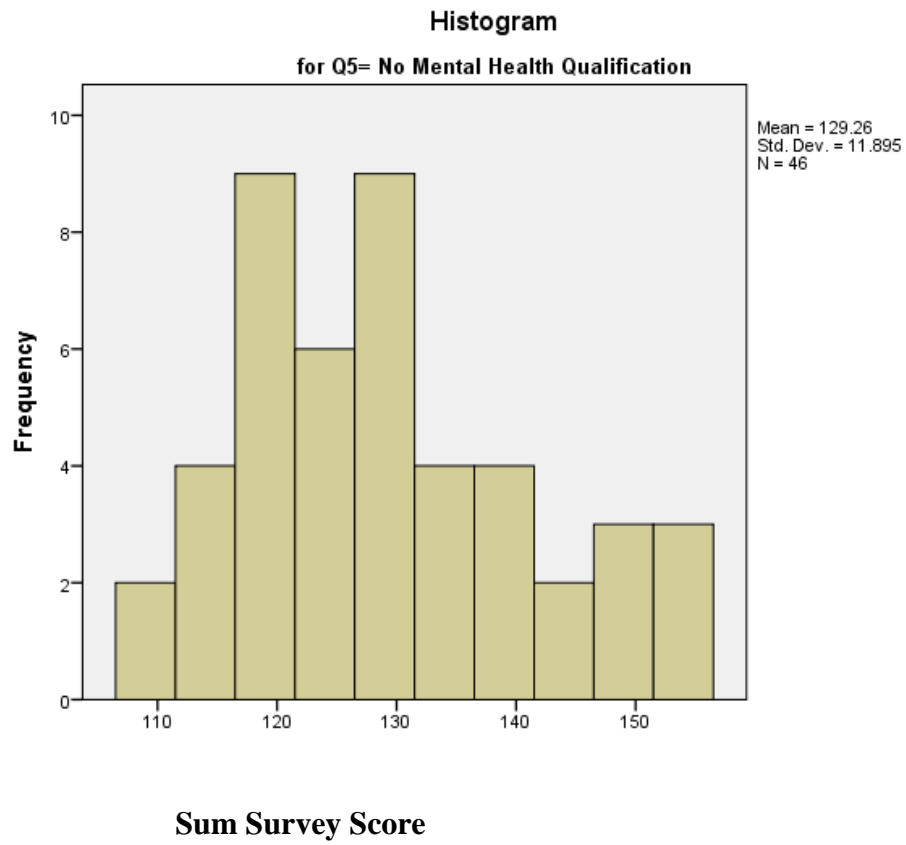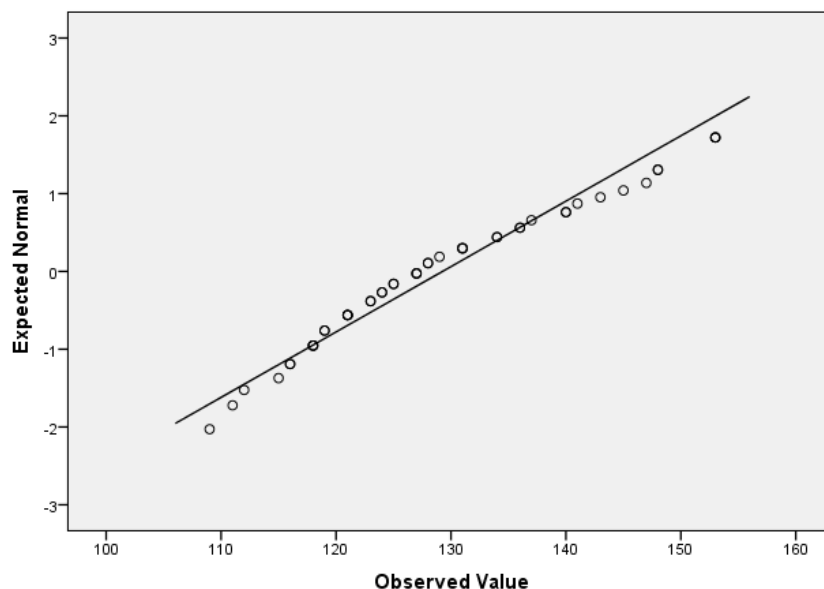Figure 5.6. *Histogram of sum survey score data for participants without mental health qualifications.*

Sum Survey Score

Figure 5.7. *Normal Q-Q plot of sum survey score data for participants without mental health qualifications.*

5.4.3   Research Question 2

The second research question asked whether there was a difference in the self-injury attitude scores of non-MHE and MHE nurses specifically in the emergency department. Descriptive data shows that the MHE nurses working in the ED have a higher mean attitude/knowledge score (M = 130.40, SD = 11.22) compared to the non-MHE nurses in the ED (M = 126.58, SD = 12.89), as illustrated in Table 5.8. To determine if the difference in mean scores is significant, an independent samples t-test was performed. Prior to conducting the test, the data were evaluated for normality and the assumption of equal variance. Q-Q plots (Figures 5.8 and 5.9) and the Shapiro-Wilk tests failed to support any significant deviance from normality (p = 0.133 for General Nurses in ER, p = 0.279 for MH nurses in ER).

Figure 5.8. *Q-Q plot of the sum Survey score for non-MHE Nurses in the ED*
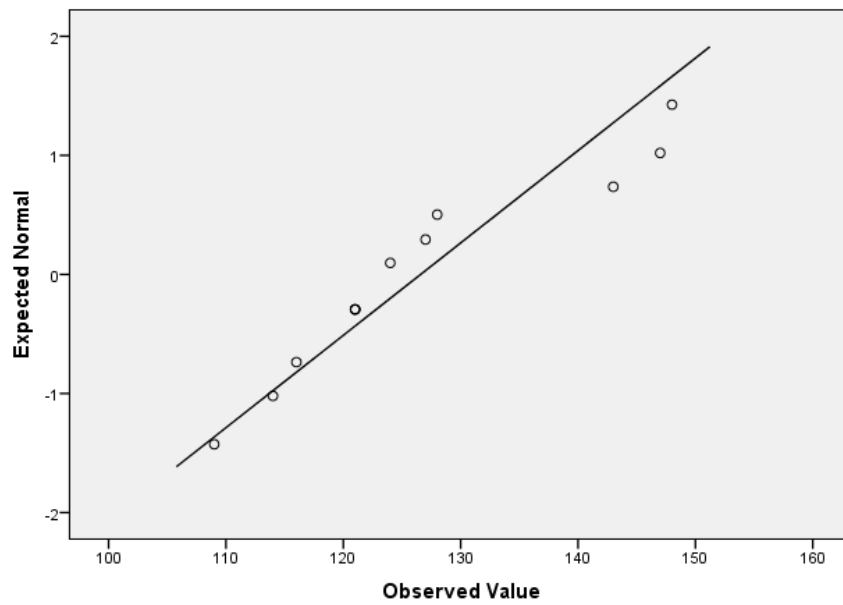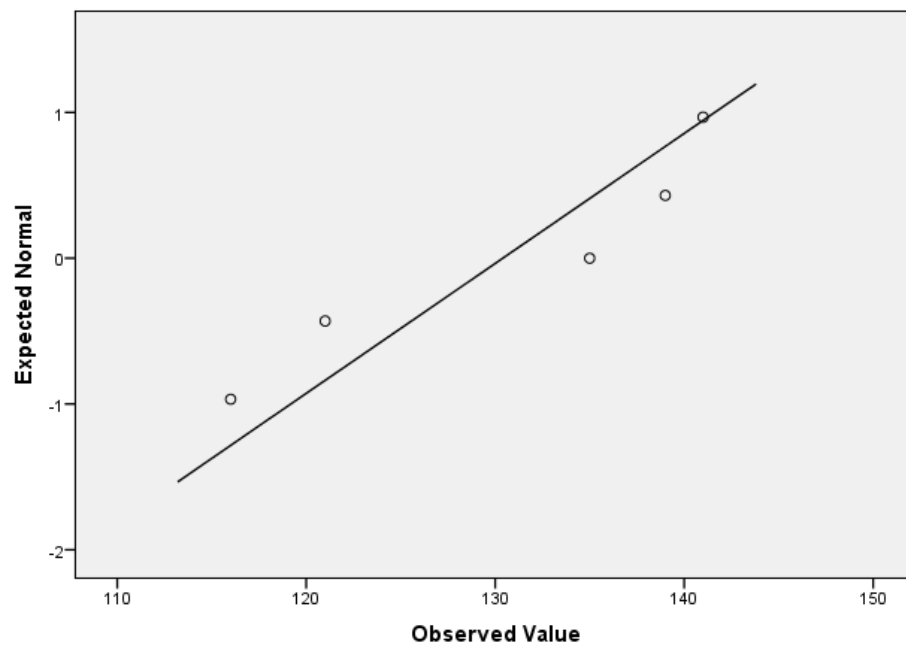

Figure 5.9. *Q-Q plot for sum Survey score for MHNs in ED*

Graphic representation of the data as well as results of the Shapiro-Wilk test for normality suggested normal distribution despite the small sample size (see Figures 5.8 and 5.9). Levene statistic (F = 0.019, p = 0.892) suggested no evidence to contradict the equal variance assumption.

Table 5.8. *Group Descriptive Statistics non-MHE and MHE Nurses in the ED*

	ER distinction	N	Mean	Std. Deviation	Std. Error Mean
Attitude Score	Non-MHE in ER	12	126.58	12.887	3.720
	MHE in ER	5	130.40	11.216	5.016

Results of the independent samples t-test (see Table 5.9) failed to support significance of the difference in mean scores between the two groups (p = 0.574). The results support the null hypothesis for this research question, that there was no significant difference in mean attitude/knowledge scores between MHE nurses and MNHE nurses in the ED. However, it was noted that the limited sample size with respect to nurses working within the ED in the overall study sample prevents strong conclusions from this test.

Table 5.9 *Results of the Independent Samples t-test of Attitude Scores among Nurses in the ED*

	t	df	p	Mean Diff	Std. Error Diff	95% CI of the Difference Lower	Upper
Mean Attitude Scores:							
MHE in ED/ non-MHE in ED	-.575	15	0.574	-3.82	6.634	-17.957	10.324

5.4.4   Research Question 3

The third research question asked whether there was a difference in knowledge between non-MHE and MHE nurses employed in mental health units towards self-injurers. This question was first assessed using the full single scale (all 43 items of the survey) in order to assess nurses' overall attitudes, knowledge, beliefs, and moral views, making the third research question an extension of the first research question assessing the scores of the nursing participants on the survey. From the details offered in the first research question, the mean overall survey score of MHE nurses was slightly higher at 130.78 (SD 12.1) compared to non-MHE nurses with a mean score of 129.26 (SD 11.9). To assess the significance of this difference, an independent samples t-test was performed comparing the overall scores of nurses with a mental health qualification and those without. Data were examined for normality and equal variances. Normality was visualised on graphic representation and equal variance assumption was tested using the Levene's test with a non-significant result ($p = 0.939$), indicating no evidence to dispute the equal variance assumption. Results of the t-test are given in Table 5.10.

Table 5.10. *Independent t-test Results for Mean Attitude/Knowledge Scores among MHE and non-MHE Nurses*

	t	df	p	Mean Difference	Std. Error Difference	95% CI of the Difference Lower	95% CI of the Difference Upper
Sum Survey Score: MH qualified – Not MH qualified	.696	143	0.487	1.526	2.191	-2.805	5.856

Results showed that the two groups failed to demonstrate significant differences in mean attitude scores (p = 0.487). The test results support the null hypothesis of the research question that there was no statistically significant difference in mean sum survey score between non-MHE and MHE nurses (MH-qualified and not MH qualified).

Separating out the survey items specific to nurses' knowledge of self-injury, the independent samples t-test was again used to compare the mean knowledge specific scores between groups (MHE and non-MHE). Results indicated a higher mean score among MHE nurses (M = 27.59, SD = 2.85) compared to non-MHE nurses (M = 25.66, SD = 2.73). Table 5.11 provides the group statistics.

Table 5.11. *Descriptive Statistics for Knowledge Scores of MHE and non-MHE Nurses*

	Mental Health Nursing Qualification	N	Mean	Std. Deviation	Std. Error Mean
Knowledge Score	Mental Health Qualification	110	27.591	2.852	0.272
	No Mental Health Qualification	56	25.661	2.725	0.364

Knowledge score data in the two groups demonstrated normality by graphic visualisation (see Figures 5.10 to 5.13) and Shapiro-Wilk test (p = 0.068 for MHE and p = 0.214 for non-MHE). Levene statistic supported the equal variance assumption. (*F* = 0.024, *p* = 0.878). Therefore, the t-test assumptions were met, supporting the use of the test for the evaluation of between group differences in mean knowledge scores.

Figure 5.10. *Histogram for knowledge score among MHE nurse participants*
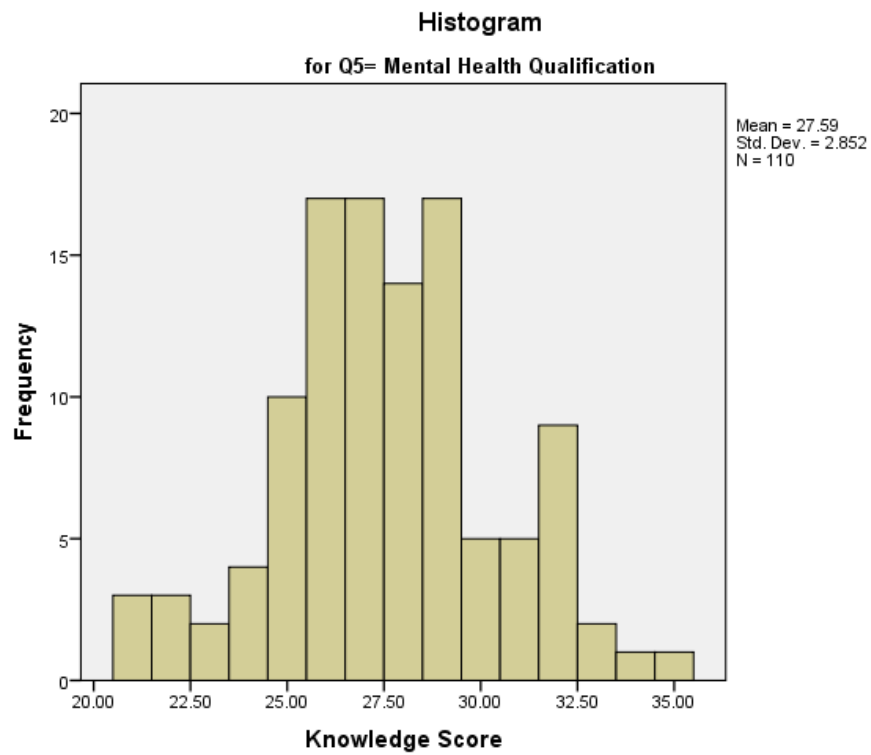

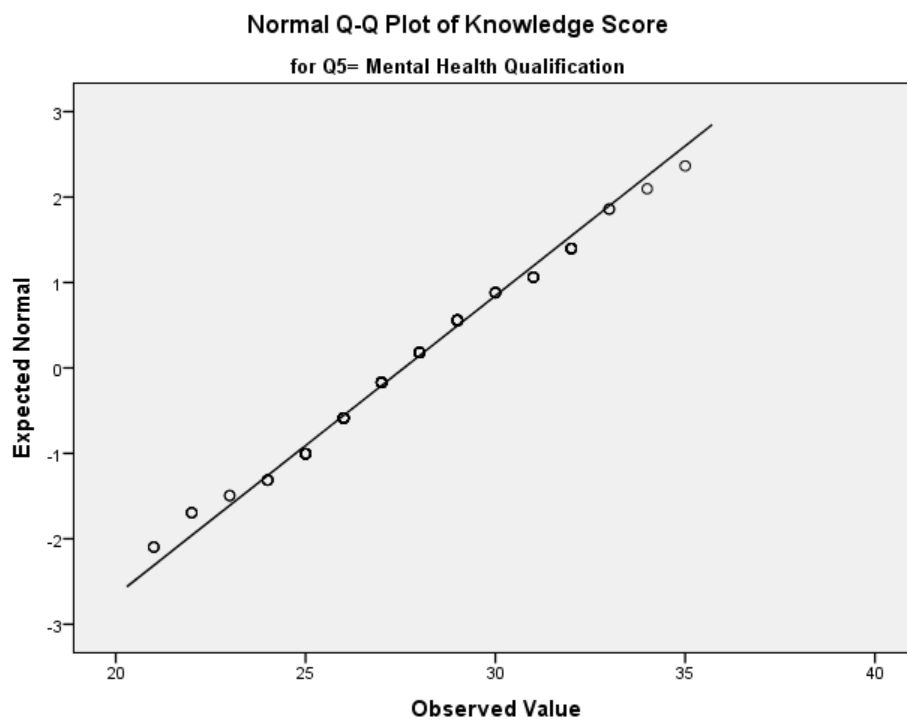Figure *5.11.* Normal Q-Q plot of knowledge score among MHE participants

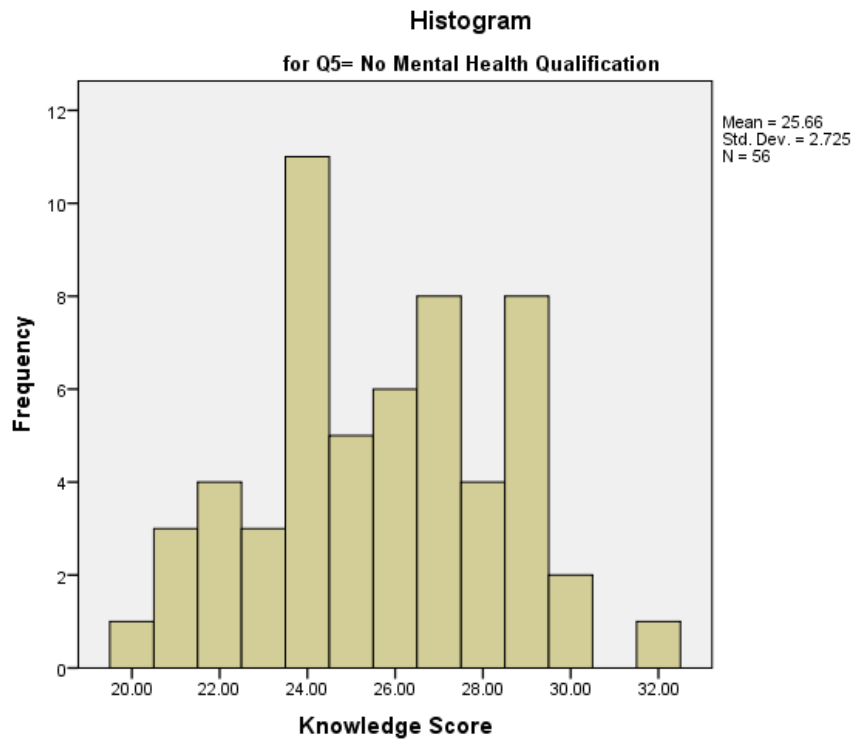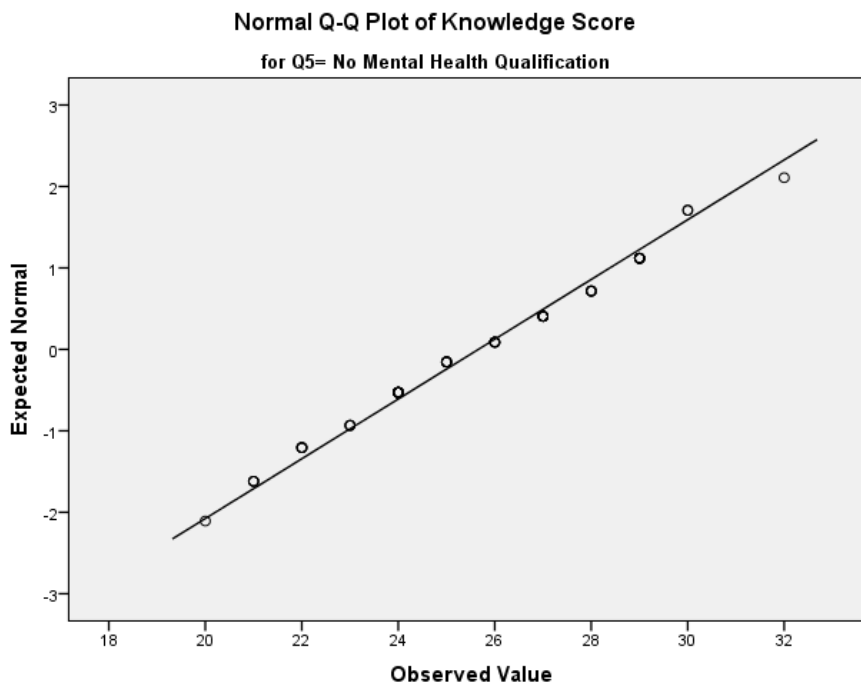*Figure 5.12.* Histogram of knowledge score among non-MHE nurse participants

Figure 5.13. Normal Q-Q plot of knowledge score among non-MHE participants

The results of the independent samples t-test revealed a statistically significant differences in knowledge sub-score between nurses with a mental health qualification (MHE) and nurses without a mental health qualification (non-MHE) with a p-value of < 0.001 (see Table 5.12).

Table 5.12. *Results of Independent Sample t-test Comparing Knowledge Scores (MHE/non-MHE)*

	t	df	p	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
						Lower	Upper
Knowledge Score	4.184	164	0.000	1.930	0.461	1.019	2.841

Seeking further clarification on the specific differences between the two groups, each item on the survey was analysed using descriptive statistics and independent samples t-tests to identify significant differences in responses. Prior to conducting the t-test analysis, data were assessed for test assumptions. Given the large sample size, the assumption of validity of the t-test was maintained as the expected shape of the sample distribution was approximately normal. Levene's tests for equality of variances were performed for each survey item. All values obtained from the Levene's test were non-significant ($p > 0.05$), allowing for equal variances to be assumed, with the exception of item numbers 9, 27, and 28 for which the equal variance were not assumed. Table 5.13 illustrates the individual survey questions, the mean responses, the mean between group difference, and the significance level of the between group differences.

Table 5.13. *Individual Item Survey Responses*

Survey Item	MHE	N	Mean	SD	Mean Difference	T	p (2-tail)
1.Self-injury may be a form of reassurance for the individual that they are really alive and human	yes	114	3.11	0.648	0.355	3.34	0.001
	no	58	2.76	0.683			
2.Self-injuring individuals can learn new ways of coping*	yes	114	3.48	0.502	0.224	2.68	0.008
	no	58	3.26	0.548			
3.Acts of self-injury are an intense human communication about the individuals situation*	yes	112	3.28	0.603	-0.039	-0.40	0.687
	no	57	3.32	0.572			
4.A self-injuring individual is only trying to get attention	yes	114	3.04	0.664	-0.017	-0.15	0.880
	no	58	3.05	0.711			
5.Self-injuring individuals have only themselves to blame for their situation	yes	114	3.39	0.659	0.088	0.85	0.398
	no	57	3.30	0.597			
6.For some individuals, self-injury can be a way of releasing tension	yes	114	3.37	0.553	-0.063	-0.72	0.478
	no	58	3.43	0.534			
7.Self-injuring individuals have a	yes	114	3.32	0.524	0.061	0.73	0.469

great need for acceptance and understanding*	no	57	3.26	0.518			
8.Self-injuring individuals deserve the highest standards of nursing care on every occasion	yes	114	3.44	0.679	-0.044	-0.41	0.684
	no	58	3.48	0.655			
9.I can really help self-injuring individuals*	yes	114	2.96	0.637	0.258	2.41	0.017
	no	58	2.71	0.676			
10.I listen fully to the self-injuring individual's problems and experiences*	yes	114	3.25	0.635	0.134	1.33	0.184
	no	58	3.12	0.595			
11.I am highly supportive towards individuals who self-injury*	yes	114	3.06	0.708	-0.114	-1.04	0.299
	no	57	3.18	0.601			
12.I find it rewarding to care for individuals who self-injure*	yes	114	2.54	0.789	-0.111	-0.88	0.382
	no	58	2.66	0.785			
13.I feel critical towards individuals who self-injure.	yes	114	2.97	0.684	-0.026	-0.24	0.813
	no	57	3.00	0.681			
14.I demonstrate warmth and understanding towards self-injuring individuals in my care*	yes	113	3.19	0.527	0.010	0.12	0.904
	no	57	3.18	0.539			

15.I help self-injuring individuals feel positive about themselves*	yes	114	3.15	0.568	0.096	1.08	0.282
	no	57	3.05	0.515			
16.I blame myself when individuals in my care self-injure	yes	114	3.48	0.668	0.184	1.74	0.085
	no	57	3.30	0.626			
17.I acknowledge a self-injurer's individual qualities*	yes	113	3.32	0.571	0.104	1.12	0.263
	no	56	3.21	0.563			
18.I feel concern for individuals who self-injure*	yes	114	3.19	0.608	-0.053	-0.57	0.568
	no	57	3.25	0.474			
19.I would feel ashamed if a member of my family engaged in self-injury	yes	114	3.02	0.798	-.158	-1.25	0.212
	no	57	3.18	0.735			
20.Individuals who self-injure are in desperate need for help*	yes	114	3.07	0.700	-.193	-1.82	0.071
	no	57	3.26	0.552			
21.Providing information about community support groups to individuals who self-injure is a good idea*	yes	113	3.35	0.563	-0.069	-0.77	0.443
	no	58	3.41	0.531			
22.Ongoing education and training	yes	114	3.43	0.595	-0.001	-0.01	0.990

would be useful in helping me deal appropriately with self-injuring individuals*	no	58	3.43	0.596			
23.Knowledge of referral sources is important when dealing with self-injuring individuals*	yes	113	3.50	0.520	-0.075	-0.90	0.372
	no	57	3.58	0.498			
24.Risk assessment is an important tool for me to have*	yes	114	3.60	0.560	-0.024	-0.27	0.785
	no	58	3.62	0.524			
25.Self0injuring individuals are a victim of some other social problems*	yes	114	2.86	0.786	-0.020	-0.16	0.874
	no	58	2.88	0.727			
26.Individuals who self-injure have been hurt and damaged in the past*	yes	114	3.25	0.635	0.272	2.51	0.013
	no	58	2.98	0.737			
27.I have the appropriate knowledge and communication skills to help individuals who self-injure*	yes	114	2.98	0.532	0.517	5.37	0.000
	no	58	2.47	0.627			
28.I deal effectively with individuals who self-injure*	yes	114	2.99	0.489	.302	3.59	0.001
	no	58	2.69	0.537			

29.I often feel helpless in dealing with the problems of self-injuring individuals.	yes	114	2.65	0.704	.270	2.41	0.017[5]
	no	58	2.38	0.671			
30.Self-injuring individuals just clog-up the system.	yes	113	3.18	0.722	-0.069	-0.60	0.549
	no	57	3.25	0.662			
31.Self-injuring individuals are just using ineffective coping mechanisms	yes	113	2.39	0.839	-0.093	-0.71	0.477
	no	58	2.48	0.755			
32.Overall, I am satisfied with the control I have in dealing with deliberate self-injury in my unit*	yes	113	2.76	0.602	0.313	3.28	0.001
	no	58	2.45	0.567			
33.Dealing with self-injury is a waste of the health professional's time	yes	114	3.33	0.700	-0.011	-0.10	0.918
	no	58	3.34	0.664			
34.I feel that individuals who self-injure are treated less seriously by medical and nursing staff than individuals with other medical problems.	yes	114	1.89	0.688	-0.183	-1.57	0.119
	no	58	2.07	0.792			
35.Individuals who self-injure are	yes	113	2.85	0.658	-0.185	-1.75	0.082

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[5] * = reverse scored

trying to get sympathy from others.	no	58	3.03	0.648			
36.Individuals should be able to self-injure in a safe environment.*	yes	113	2.31	0.769	0.292	2.19	0.030
	no	57	2.02	0.916			
37.Self-injuring individuals do not respond to care.	yes	113	3.15	0.630	0.013	0.12	0.902
	no	58	3.14	0.634			
38.When individuals self-injure, it is often to manipulate others.	yes	113	2.82	0.722	-0.091	-0.78	0.435
	no	58	2.91	0.708			
39.Individuals who self-injure are typically trying to get even with someone.	yes	113	3.27	0.522	0.064	0.72	0.472
	no	57	3.21	0.590			
40.A self-injuring individual is a complete waste of the nurse's time.	yes	114	3.50	0.599	0.034	0.38	0.707
	no	58	3.47	0.503			
41.Self-injuring is a serious moral wrongdoing.	yes	114	3.50	0.655	0.138	1.30	0.196
	no	58	3.36	0.667			
42.There is no way of reducing self-injuring behaviours.	yes	113	3.36	0.628	0.082	0.81	0.420
	no	57	3.28	0.620			
43.Individuals who self-injure lack solid religious convictions.	yes	112	3.55	0.695	0.105	0.98	0.328
	no	58	3.45	0.597			

Significant differences were noted for nine survey items and for all of these items, the MHE nurse group scored significantly higher. These items included 1, 2, 9, 26, 27, 28, 29, 32, and 36. These items were all positive attitude and knowledgeable statements with the exception of item 16, which declared feeling of self-blame when individuals in the care of the nurse self-injure. This increased score among MHE nurses for this item may be reflective of an increased frequency of dealing with this population among MH qualified nurses and the nurses' feelings of responsibility for the care of their patients.

5.4.5   Research Question 4

The fourth research question asked whether, and to what extent, there is a relationship between years of experience on the attitudes and knowledge towards NSSI. To assess the relationship between years of experience, both as a nurse in general and as a mental health nurse, a correlation analysis and a regression analysis were conducted. Prior to conducting the multiple regression analysis, the data were screened for linearity, normality, and outliers. Normality (based on the residuals in regression) and linearity were demonstrated through construction of a P-P probability plot (Figure 5.14). Outliers were not observed on graphs for each independent variable. A correlation analysis was conducted which revealed no statistically significant correlations between the total attitude score and the years of mental health nursing experience or the overall years worked as a nurse (see Table 5.14).

Table 5.14. *Correlation Analysis between Total Attitude Score and Years' Experience*

		Years of mental health nursing experience	years worked as nurse
Total Attitude Score	Pearson Correlation (r)	-0.047	-0.001
	(2-tailed significance (p)	0.286	0.498
	N	145	145

Second, a multiple regression analysis was performed using total attitude/knowledge score as the dependent (or outcome) variable and independent variables of years working as a nurse and years of mental health nursing experience. Collinearity was assessed using the variance inflation factor (VIF) (values <3) and tolerance (>.3). Although the VIF was under 3 (VIF = 1.353), the tolerance demonstrated evidence of collinearity at 0.739, suggesting error in assessing the contributions of the variables to the model (beta values).

Figure 5.14. *Normal P-P Plot of regression standardised residual with dependent variable of total survey score (summed survey score).*
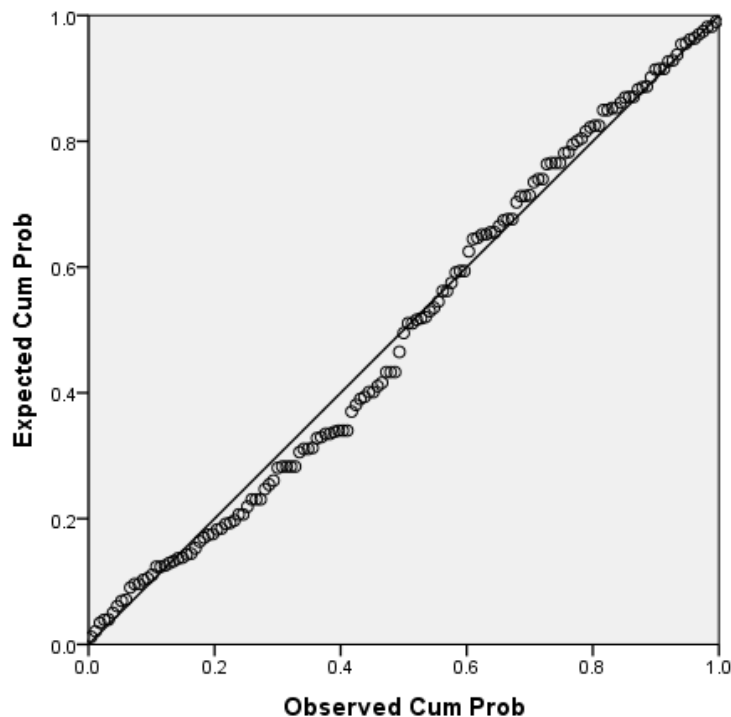
As could be expected given the non-significant correlations, the regression model was not significant ($F_{(142)} = 0.215$, $p = 0.807$) with an R^2 of 0.003, reflecting that only 0.3% of the variance in the total survey score was related to the two variables of years of experience (Tables 5.15 and 5.16). Consistent with these results, the beta values for the two independent variables (Table 5.17) demonstrated non-significant contributions for the two variables: years of mental health nursing ($p = 0.514$) and overall years' experience in nursing ($p = 0.772$). These results support the null hypothesis for the fourth research question which posited that there would be no significant relationship between years of experience as a nurse or as a mental health nurse and the total attitude/knowledge score.

Table 5.15. *Regression Model Summary*

Model	R	R^2	Adjusted R Square	Std. Error of the Estimate
Total Survey Score predicted by years experience (as nurse and in mental health nursing)	.055	0.003	-0.011	12.322

Table 5.16. *Regression ANOVA Results*

	Sum of Squares	df	Mean Square	F	p
Regression	65.352	2	32.676	0.215	0.807
Residual	21561.241	142	151.840		
Total	21626.593	144			

Table 5.17. *Coefficients for the Regression*

	Unstandardized Coefficients		Standardized Coefficients		
	B	Std. Error	Beta	t	p.
(Constant)	134.142	3.708		36.178	0.000
years of mental health nursing experience	-0.415	0.634	-0.064	-0.654	0.514
years worked as nurse	0.238	0.819	0.028	0.290	0.772

5.4.6   Research Question 5

The fifth research question asked whether there was a difference between the attitudes of enrolled nurses (EN) and registered nurses (RN) towards self-injuring individuals. From the results, descriptive statistics (Table 5.18) show that the mean survey total attitude score of registered nurses was higher at 134.1 (SD 12.3) compared to enrolled nurses with a mean score of 129.6 (SD 11.53).

Table 5.18. *Group Statistics for RN versus EN Attitude Scores*

	RN or EN	N	Mean	Std. Deviation	Std. Error Mean
Total Attitude	RN	130	134.069	12.294	1.078
Score	Enrolled nurse	15	129.600	11.525	2.976

To assess the significance of this difference, an independent samples t-test was performed comparing the scores of registered nurses with enrolled nurses. Data were examined for the assumptions of normality and equal variances. Normality was visualised on graphic representation (see Figures 5.15 to 5.18) and Shapiro Wilk tests confirmed normal distribution with p-values of 0.120 (RNs) and 0.485 (ENs). The equal variance assumption was tested using the Levene's test with a non-significant result (p =0.654), indicating no evidence to dispute the equal variance assumption. Results of the t-test are given in Table 5.19.

Figure 5.15. *Histogram of sum Survey score data of RNs*
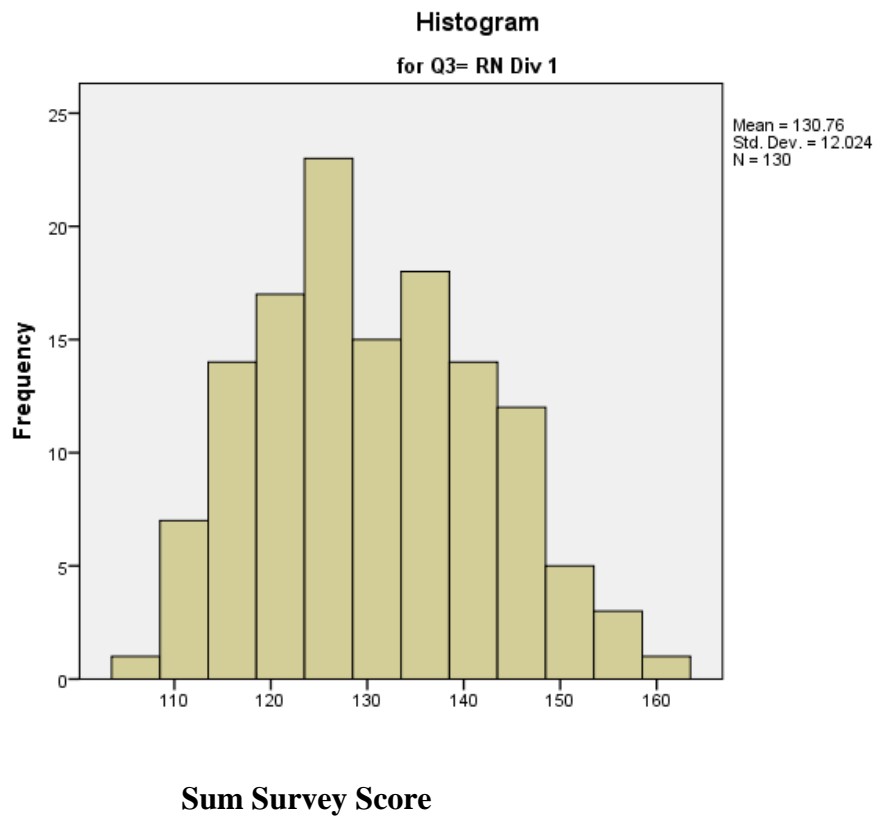
Sum Survey Score

Figure 5.16. *Normal Q-Q Plot of sum Survey score data for RNs*
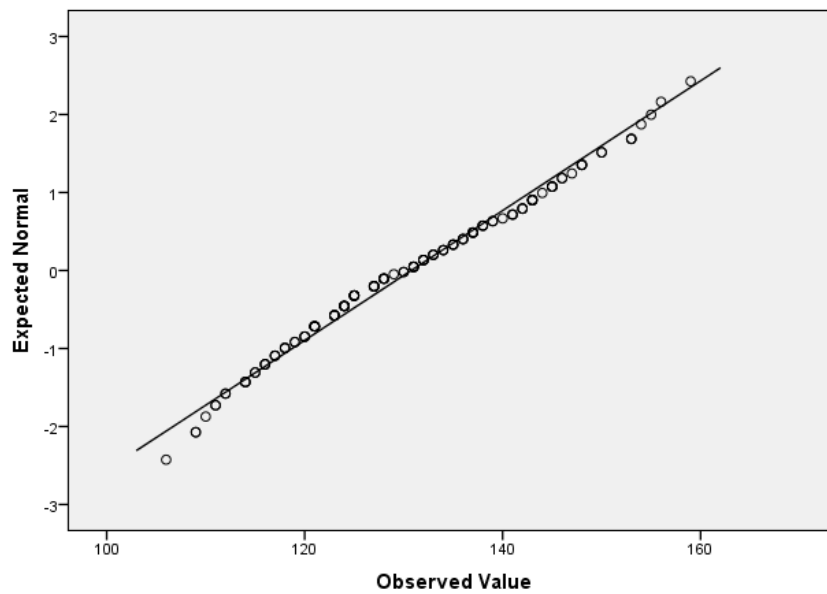
Figure 5.17. *Histogram of sum Survey score data for ENs*
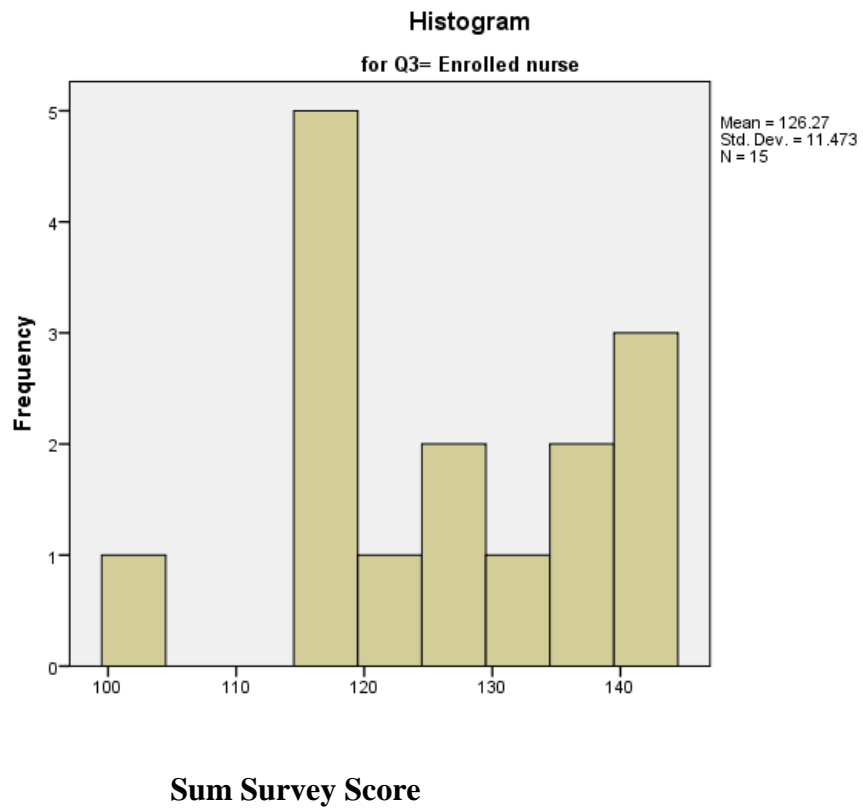
Figure 5.18. *Normal Q-Q plot of sum Survey score data for ENs*
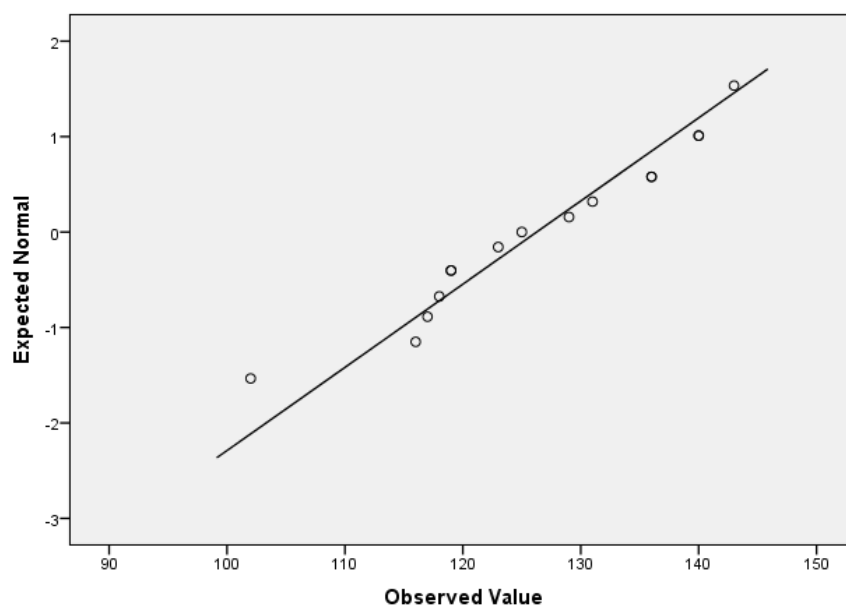
Table 5.19 *Results for Independent Samples t-test between EN and RN groups*

	t	df	p	Mean Diff	Std. Error Diff	95% CI of the Difference Lower	Upper
Total Survey Score: RN – EN	1.341	143	.182	4.46923	3.33257	-2.11823	11.05669

The results indicated no significant differences in sum survey items indicating attitude/knowledge scores between enrolled nurses and registered nurses. Therefore, the null hypothesis for the final research question was upheld, which is that there was no significant difference in total attitude score between enrolled nurses and registered nurses (p = 0.182). It is noted that the unequal group samples and the relatively small sample of enrolled nurses' limits the results of this test.

5.5 Summary

From the data analysis conducted for this study, the following results addressed the research questions of the study. The conclusion was that the analysis failed to demonstrate statistically significant differences between MHE and non-MHE nurses with regard to the survey sum score (attitude, knowledge, moral views, and beliefs about self-injury). Although MHE nurses demonstrated a higher overall mean survey sum score of 134.1 (*SD* 12.3) compared to the non-MHE nurses' mean score of 132.6 (*SD* 12.2) among the general nursing population and in the Emergency Department, they displayed a higher mean score of 130.4 (*SD* 11.2) for MHE nurses compared to non-MHE nurses of 126.6 (*SD* 12.9), addressing Research Questions 1 and 2. However, these differences in total survey scores failed to demonstrate significance at the 0.05 alpha level (Research Question 3).

Further exploring the difference in knowledge scores more specifically, the sum scores of the knowledge related items of the survey instrument demonstrated a significance between group differences (MHE versus non-MHE). The mean knowledge specific score among MHE nurses was 37.59 (SD = 2.85) compared to the mean knowledge specific score among non-MHE nurses in this study (M = 25.66, SD = 2.73). This difference in knowledge specific score was significant at a $p < 0.001$ level. In addition, the individual survey items were evaluated for differences revealing significant differences in the following items:

Item 1. Self-injury may be a form of reassurance for the individual that they are really alive and human

Item 2. Self-injuring individuals can learn new ways of coping

Item 9. I can really help self-injuring individuals

Iteme 26. Individuals who self-injure have been hurt and damaged in the past

Item 27. I have the appropriate knowledge and communication skills to help individuals who self-injure

Item 28. I deal effectively with individuals who self-injure

Item 29. I often feel helpless in dealing with the problems of self-injuring individuals.

Item 32. Overall, I am satisfied with the control I have in dealing with deliberate self-injury in my unit

Item 36. Individuals should be able to self-injure in a safe environment.

These items all reflected positive attitude and knowledgeable statements with regard to self-injury, with the exception of item 16, which declared feeling of self-blame when individuals in the care of the nurse self-injure. This increased score among MHE nurses for item 36 was felt to possibly reflect an increased frequency of dealing with this population among MH qualified nurses and the nurses' normal feelings of responsibility for the care of their patients.

In examining whether a relationship exists between the total attitude/knowledge score of nurses and their years of overall nursing experience and/or the years of mental health nursing experience, the results of both the correlation and regression analyses supported a lack of significant differences (Research Question 4). Finally, comparing Registered Nurses (RN) and Enrolled Nurses (EN), although the mean score among RNs was higher (M = 134.1, SD = 12.3) than that of ENs (M = 129.6, SD = 11.5), the difference failed to demonstrate statistical significance (p > 0.05).

The study included an analysis of validity and reliability. Cronbach's alpha of 0.901 supported reliability of the instrument for use in this study. In addition, an exploratory factor analysis was conducted, with results supporting the use of the instrument for measuring the constructs of attitude and knowledge regarding self-harm behaviours.

Chapter 6: Qualitative Data Analysis and Findings

6.1 Introduction

This chapter will present the findings of the analysis of qualitative data elicited by interviews with 25 participants. First will be an outline of the process of data analysis undertaken for this study. Using a simple qualitative thematic analysis of coding and thematising, the researcher was able to analyse statements made to reveal themes from the data (Akhaven & Lundgren, 2012; Graneheim & Lundman, 2004). These themes included: meaning of NSSI is very complex; somebody's way of explaining their feelings; you are wasting our time; and beneficial to both individuals who self-injure and staff. Each of the themes will be discussed in detail using quotes from the participants to illustrate the findings.

To identify relevant responses and commonality among the different interviews conducted, the procedures for conducting the simple thematic analysis offered by Graneheim and Lundman (2004), Patton (2002) and Akhaven and Lundren (2012) were followed. Through this thematic analysis process, the researcher identified, coded, and categorised the patterns that emerged from the data (Patton, 2002). Accordingly, the coding process entailed a systematic identification and categorisation of the various responses offered by participants to the semi-structured interview questions. To do this, each interview was read and re-read to identify codes that were relevant to the purpose and topic of the study (Akhaven & Lundgren, 2010). Coded responses were grouped according to content into various thematic categories (Akhaven & Lundgren, 2010) using a constant comparative process (Graneheim & Lundman, 2004; Merriam, 2009). The thematic categories were then further reviewed and compared, yielding the overall themes and conclusions that were representative of

the different perceived elements central to the phenomenon for the group of participants (Graneheim & Lundman, 2004; Merriam, 2009).

This data analysis provides a presentation of the thematic categories relevant to the phenomenon under investigation. The presentation includes the verbatim textual data to support the discussion and to highlight the key themes developed, adding in-depth understanding to the themes toward clarity of the experiences and perceptions of the nursing participants (Creswell, 2007). The coding and categorisation of the data was conducted using NVivo 10® qualitative analysis software as an organized workspace in which to arrange the data, track frequencies, visualise patterns in the data, and develop themes and patterns from the data. The overarching themes resulting from this process represent the perceptions of the group as a whole toward addressing the research questions of the study.

6.2 Interview Findings

The analysis of the qualitative interview data resulted in the development of four thematic categories which included: the meaning of NSSI; as very complex; somebody's way of explaining their feelings; you are wasting our time; and beneficial to both individuals and staff. Each of the thematic categories is discussed individually. Textual, verbatim examples are provided to support the themes. Where possible, the differences between MHE and non-MHE participants' responses are discussed where relevant. The participants included 12 Mental Health-Educated (MHE) nurses, and 13 Non-Mental Health-Educated (non-MHE) nurses. Four of the nurses were Enrolled Nurses and 21 were Registered Nurses. A qualitative data analysis was performed to inform the first three core research questions of the study (research questions 1, 2, and

3). The analysis was conducted on nurse participant's responses ($n = 25$) to the semi-structured interview questions.

6.2.1   The Meaning of NSSI is Very Complex

It was clear from the data that when the participants were asked what non-suicidal self-injury meant for them, the response varied as to their level of understanding as well as their interpretation of this phenomenon. There was acknowledgement from many participants that NSSI was difficult to define because it was such a complex behaviour that often involved a range of emotions for the individual. This complexity is clearly illustrated in the following:

> *Meaning of self-injury is variable. A private thing against someone or to display distress. Meaning of SI is very complex. Meanings include a mix of positive and negative responses. Negative responses can include despair. This can be mixed in the environment over years of negativity* (Participant 1, RN, MHE).

Such was the complexity of this phenomenon that many participants perceived that even to the individual who self-injures there were many definitions. The importance of this individuality is exemplified by the true meaning of the complexity and true individuality of self-injury. Whether this points more to the participants' lack of knowledge in this area is not clear however, the extent of the variety of meanings for each individual is evident in the following:

> *The meaning of self-injury varies with the number of people who do it. Each person has an individual reason I think it's sad they can't find a less hazardous way of communicating distress. Each individuals meaning for their*

behaviour must be judged individually. That's difficult (re meaning)

(Participant 4, RN, MHE).

The comments expressed by participants was able to inform a definition of NSSI as intentional physical self-harming that functions as an unhealthy coping strategy to relieve stress, regain control, or to communicate thoughts or feelings. A particularly coherent and inclusive definition illustrating these central points:

> *Self-injury would relate to deliberate self-injury that would be a behavioral act engaging in parasuicidal behavior without intent to kill oneself. Some expression of emotion through expression of pain. A form of communication, to communicate distress or release tension* (Participant 15, RN, MHE).

There was a clear difference in the given definition outlined by the mental health endorsed practitioner compared to those who were not. For instance, the mental health endorsed practitioner appeared more insightful about the meaning behind the behaviour of self-injury. In other words, the reasons why an individual self-injures:

> *Self-injury is someone who hurts themselves by cutting or self-injuring/harming themselves. They do it sometimes to make them feel something when they don't feel real, to release tension and sometimes when they're angry. I don't think people who self-injure like themselves very much* (Participant 2, EN, MHE).

When the participants discussed the meaning of NSSI, it was clear from this how the definition of NSSI varied. The point of interest here is that self-injury is not about abnormal behaviour and this is an example of how NSSI lacks understanding by

nurses. Of particular note was the difference in principle meaning between the two professional groups interviewed. Specifically the meaning of NSSI varied between RNs and ENs. It was clear from the data that RNs stated that NSSI had more of a behaviour aspect and ENs believed NSSI had more of an illness base. For example, some participants claimed that while self-injury was a form of self-punishment for one individual, it could be a way of coping with stress for another. The participants who did not believe NSSI to be an illness described it as a behaviour or symptom of mental illness, which accurately reflects the definition. The fact that RNs, both MH and non-MH considered this phenomenon as a behaviour on its own or a co-morbid behaviour is illustrated in the following:

> *Don't believe self-injury is a major or minor mental illness – it's a behaviour and maybe a symptom* (Participant 6, RN, MHE).

There was only one participant who correctly defined self-injury specifically as per the DSM-V (American Psychiatric Association, 2013), and as a symptom of BPD:

> *BPD is a major mental illness but self-injury as such is not and I see it as a symptom of something else either BPD or other issues* (Participant 7, RN, MHE)

Not all RNs who were mental health endorsed believed that NSSI was a behaviour. There was one RN nurse who felt that NSSI was a mental illness as reflected in the following comment:

> *I feel self-injury is a major mental illness, yes* (Participant 8, RN, MHE).

However, this participant clarified their thoughts within the context of comparing NSSI to attempted suicide:

> *However, self-injury has a completely different meaning to attempted suicide; yes* (Participant 8, RN, MHE).

Basically this RN was making the comment that this was a relative interpretation. It is interesting to note that even junior RNs did not believe NSSI was a mental illness. There were graduate MH nurses, for instance, who believed that NSSI was not a mental illness as can be seen from this comment:

> *I don't see self-injury as a major mental illness: no!* (Participant 10, RN, MHE).

Even registered nurses, classified as non-MHE, did not consider NSSI as a mental illness but again as:

> *A maladaptive coping behaviour* (Participant 11, RN, non-MHE).

> *I don't believe self-harm is a major mental illness, even for some, it is a behaviour and not an illness at all* (Participant 14, RN, non-MHE).

Alternatively, ENs viewed NSSI as an illness with some considering NSSI as a very serious or severe mental illness. Indeed ENs regarded NSSI not as a behaviour or phenomenon, but as a recognisable mental illness for the individual who engages in such self-injuring behaviour. There was an incredulous response from ENs generally when the researcher asked about whether NSSI was viewed as an aberrant behaviour or as an unhealthy coping mechanism on behalf of the self-injuring individual or as

part of a mental illness the individual was experiencing. This is exemplified in the following responses:

> *Yes I consider self-injury to be a major mental illness. Absolutely* (Participant 21, EN, non-MHE).

It was clear from the data that the EN group believed that in order for the individual to engage in self-injury there must have been a degree of self-hatred or self-loathing. This could explain why the EN group related self-injury to be an illness rather than a behaviour. This was highlighted in the following statement:

> *I don't think people who self-injure like themselves very much* (Participant 2, EN, MHE).

The level of less knowledge about self-injury when compared to RNs' knowledge is demonstrated by the fact that the following EN described self-injury as not deliberate, that the self-injurious act presented as an overall hatred towards the self and held for this participant, a negative connotation of self-injury:

> *The meaning of self-injury is why as I said before. There are many meanings for self-injury yes: tension, anger, hatred towards the self, manipulation, attention seeking* (Participant 21, EN, non-MHE).

However, not all of the EN participants believed that NSSI was a mental illness believing instead that it was a behaviour. Although this belief was qualified by adding that self-injury could degenerate into a mental illness, indicating the tenuousness of this belief:

I don't think self-injury is a major illness, I just think it is a coping mechanism. Sometimes though it can degenerate into a mental illness (Participant 25, EN, non-MHE).

There was one EN who believed, as did the RNs, that NSSI was indeed not a mental illness but an aberrant behaviour:

Don't think self-injury is a major mental illness…no…just a behaviour (Participant 21, EN, non-MHE).

This contradicts the feelings of the other three ENs who felt very strongly that NSSI was a severe form of mental illness. It was very clear from the data that the meaning of NSSI is a very complex phenomenon. The following examples shed light on the variety of responses indicating the individual nature of the meaning according to the person. In other words, NSSI means different concepts to different participants who engage with the self-injurer and even for each different event of NSSI:

Self-injury has many meanings for different people. Each different act of self-injury has a different individual meaning (Participant 14, RN, non-MHE)

When asked if they considered gender to be a factor in NSSI, nearly all of the participants spontaneously offered that women had higher rates of NSSI, and men had higher suicide rates. National data support these responses (RANZCP, 2014). Even participants who did not feel particularly confident on the topic suggested this, seemingly as an educated guess, as illustrated:

I would imagine many more females than males self-injure, [and] more males commit suicide (Participant 10, RN, MHE).

A possible explanation for this difference was offered in the following:

> *Females self-injure more than males self-injure. Males probably [commit]*
> *suicide more. I don't really know, but it may be because they don't seek out as*
> *much help as females* (Participant 12, RN, MHE).

Interestingly, non-MHE RNs were more likely than MHE RN or any EN, to take special factors into account when treating an individual from an Indigenous background. The issue discussed by this group of RNs' was the fact that Indigenous status could indicate higher overall vulnerability. Many participants believed that there were treatment and assessment risks associated when exploring the needs of an individual who presents to an ED or mental health facility as having special needs. This reason is explained in the following:

> *If the person identified themselves as Indigenous, I would be very cautious*
> *because of increased deaths in custody, and seclusion…and all that. General*
> *vulnerability would be increased* (Participant 11, RN, non-MHE)

Some said they would coordinate with Indigenous resources in the individual's care as a result. In other words:

> *If the person was Indigenous, I would contact the Aboriginal support worker…*
> *to help and support* (Participant 12, RN, MHE).

The participants were asked what contributing social factors they would take into account when performing a risk assessment of individuals who engaged in self-injury. All but one nurse, who did not perform risk assessments herself, offered examples of social factors they considered important. The most commonly mentioned

factor was isolation, followed closely by protective factors, such as religion and community engagement. Loneliness and isolation were the key responses by participants when taking social factors into account. Substance use, history of trauma, housing status, and family relationships were also commonly mentioned. General demographic factors such as age, gender and socioeconomic status were much less common. All participants simply listed examples of factors they took into account, and no participants discussed these factors in detail. Mostly participants were only able to identify one factor each, if that. Therefore, quotes have not been inserted here to illustrate this. No significant differences between the groups were noted.

Beyond this core understanding, the wide variation in components of definitions offered by participants may indicate a need for a more commonly accepted definition of NSSI. NSSI is a meaning understood by participants as inflicting damage to the skin or body, and not overdosing on medications as this is too difficult to distinguish from an act of self-injury and a suicide attempt. Most participants agreed that NSSI was a specific act of self-injury as well as a need for education.

6.2.2 Somebody's Way of Explaining their Feelings

One of the common components of NSSI mentioned particularly by the RNs who were mental health endorsed was that it was a communication of distress. Interestingly, the EN group did not mention distress as a component of NSSI. Relieving tension and explaining feelings has a deep meaning as understood by the nurses:

Self-injury has many meanings and it is somebody's way of explaining their feelings. The meaning is so personal for each patient (Participant 10, RN, MHE)

The feelings that are being demonstrated through the act of NSSI that was evident from the data was some sort of stress that was being expressed:

Self-injury is when the person wants to communicate distress and release tension primarily by cutting or burning themselves (Participant 11, RN, non-MHE)

In the data distress was often mentioned in conjunction with 'coping' or 'communication'. Some nurses described NSSI as a strategy for coping with, or communicating, distress. In other words, communicating distress is about a coping mechanism. Coping is difficult for such individuals who engage in NSSI, as elicited from the data:

Self-injury was an expression of pain. A form of communication, to communicate distress or release tension (Participant 15, RN, MHE).

Further, some RNs acknowledged that NSSI was more than communicating or relieving distress but that there were chronic and ongoing feelings or dysthymia. Self-injuring individuals feel chronically 'bad' about themselves with impaired mood and emotional regulation with an inability to self soothe. In other words, they advise:

The person who resorts to self-harm, regularly feels bad and regularly feels distressed (Participant 19, RN, MHE).

The participants acknowledged the complexity of the behaviour. The fact that distress was acknowledged as a component of NSSI was not so strongly mentioned by those RNs who were not mental health educated. For example:

Self-injury is about the person displaying distress, about expressing self through self-injury. Different ways of using any mechanism: through physical or emotional [including neglect] or punishing self or causing others to hurt them (Participant 23, RN, non-MHE).

Another aspect of communicating is that individuals who engaged in NSSI often define self-injury in terms of self-punishment, stating:

Self-injury is about the person displaying distress, expressing self through self-injury. [There are] different ways using any mechanism: through physical or emotional (including neglect) or punishing self (Participant 23, RN, MHE).

As noted in this quote, neglect can also be seen as 'willful self-neglect' or a deliberate failure to attend to activities of daily living (ADLs) such as daily bathing, daily teeth brushing, washing of the hair and daily hair brushing. Self-anger was also noted by participants as a meaning behind NSSI. As noted in the example given by the following participant, self-injury serves as:

A form of punishment. Like communicating something bad occasionally as well as anger toward the self (Participant 19, RN, MHE).

This notion of anger and self-punishment was primarily mentioned by MHE participants however, one non-MHE participant, claimed:

> *There are many meanings for NSSI: tension, anger, hatred towards the self*
> (Participant 21, EN, non-MHE).

The distribution was equal regarding this perception between the ENs and RNs. Some nurses believed that NSSI is a way of explaining and expressing complex feelings. It is not about a call for help. The individual is attempting to communicate how they feel and the extent of their feelings:

> *Self-harm is when someone injures their body deliberately ... why?? ... Lots of*
> *reasons most often not being able to cope with different emotions. It is mostly*
> *about the individual trying to communicate very difficult emotions to you. It's*
> *not* just attention seeking or a cry for help (Participant 18, RN, non-MHE).

From the data it was evident that the overwhelming meaning of NSSI was that self-injury was about the individual wanting to inflict physical harm and scarring towards themselves. Interestingly though, this viewpoint was more common among the non-MHE RN group. For instance:

> *NSSI is when the person deliberately tries to hurt themselves by cutting,*
> *overdosing or car accidents* (Participant 14, RN, non-MHE).

In other words:

> *Self-injury is when someone injures their body deliberately* (Participant 18,
> RN, non-MHE).

In contrast was the viewpoint of the mental health endorsed participants who commented that NSSI was a controllable behaviour. A behaviour that when the individual was deemed to have more control, the more negative the participant felt

towards that individual. Non-MHE participants believed that the individual could regulate and 'switch' their self-destructive behaviours on and off: this sense of control was seen by ENs as a form of manipulation. This is reflected in the following:

Self-injury is when someone deliberately hurts themselves by cutting or burning. It's a huge relief. However, if the individual seems to have control over their self-harming behaviours there is less tolerance and acceptance felt towards the individual (Participant 6, RN, MHE).

Participants' commented however, that the level of control the individual had affected how the participant responded to them. As illustrated, this was not necessarily a positive response:

People self-injure for different reasons. Helps to serve to communicate or have needs met in different ways. Also serves as a means for the person to punish themselves especially if they are regularly in distress. However, the more control over self-injuring the individual has the more negative I feel towards the person's behaviour (Participant 7, RN, MHE).

Expanding on this notion of deliberate physical harm, participants described the various reasons as to why the individual might self-harm. The complexity of the feelings involved with a person who self-harms is evident here:

Self-injury would relate to deliberate self-injury that would be a behavioural act engaging in parasuicidal behaviour without intent to kill oneself. Some expression of emotional feeling through expression of pain. A form of communication, to communicate distress or release tension. Sometimes self-

injury can be quite serious and end up in misjudgment and serious injury or in

fact death or suicide (Participant 15, RN, MHE).

Various interpretations from participants as to the reason the individual self-injures is evident from the following insights given by the participants. Participants, especially RNs, described NSSI occurring in the context of performing the act of self-injury in order to help them feel real. When the individual feels depersonalised in order to feel less dissociated and feeling some emotion, the individual self-injures. During these times the individual feels both physically and emotionally numb. The individual after an episode of self-injury then feels more grounded and can feel emotionally and physically again. This is exemplified in the manner the participants felt that the individual does not feel real and that the individual requires to release tension through self-injuring in addition to when the individual feels angry. These beliefs are expressed in the following:

Self-injury is someone who hurts themselves by cutting of self-

injuring/harming themselves. They do it sometimes to make them feel

something when they don't feel real, to release tension and sometimes when

they're angry (Participant 2, EN, non-MHE).

In contrast, there were some participants who considered NSSI was a result of peer pressure on a person to perform the act. It begins because a friend cuts, especially in the individual's teens. For some, the individual in a given situation (friends, outpatient group or inpatient setting) can begin self-injuring occasionally. As such, the individual can also commence self-injuring in order to feel included amongst their peers. This is further exacerbated especially if they have engaged in NSSI as a chronic and habitual pattern of tension and stress relief. This is illustrated here:

Self-injury is when someone deliberately hurts themselves by cutting or burning. It's a personal coping mechanism but it is maladaptive. Sometimes it's done under peer pressure (Participant 6, RN, MHE).

It was also believed by participants that NSSI occurred through a variety of circumstances, including being injured by others. This is where an individual puts themselves into a vulnerable or confrontational position whereby they are assaulted by others. More specifically:

Self-injury is about the person displaying distress, expressing self through self-injury. Different ways using any mechanism; through physical or emotional (including neglect) or punishing self or causing others to hurt them (Participant 23, RN, MHE).

Participants reported that once the individual has self-injured it is a huge relief for that person. This type of relief represents an emotional relief from the stress. In other words:

I guess it is a form of emotional relief (Participant 24, RN, non-MHE).

This was further emphasised in a description given to a participant from a self-injurer:

I was told by a cutter once that the sight of the blood oozing was taking all her problems with it (Participant 3, RN, non-MHE).

This emotional release was also about releasing tension and communicating distress. This release of tension can be for a number of reasons including maladaptive coping with feelings of anger:

Self-injury means that the person wants to relieve tension and anger and can't do this in a more healthy and mature way. (Participant Nurse 21, EN, non-MHE).

It was evident from the data that the participants believed that self-injury ultimately was a stress relief strategy. In other words:

The person feels like they are relieving stress. [It is] a huge relief (Participant 6, RN, MHE).

Following on from this then:

The main meaning is to relieve tension. (Participant 6, RN, MHE).

This kind of coping was identified by many participants as not necessarily being a healthy way to relieve stress. It was perceived to be a way for individuals to manage and provide relief from stress. Tension and turmoil overwhelm the individual and NSSI relieves the tension or emotional crisis. Interestingly, participants commented that this 'behaviour' was more common in the younger population:

Self-injury and self-harm is responding to stress. Common frequent behaviour. Not uncommon in adolescents and young people. Indicative of trauma, maladaptive coping mechanism, poor coping skills related to poor stress tolerance (Participant 20, RN, non-MHE).

It was clear from the data the notion that NSSI was a means of coping with something was for some participants, difficult to comprehend. A number of participants perceived that for NSSI individuals, sometimes coping with something difficult was about not being able to deal with emotions. In other words:

Why? Lots of reasons; most often not being able to cope with difficult

emotions… self-injury is not an act of suicide for them it's a coping mechanism

(Participant 18, RN, non-MHE).

Or that this way of coping was because there is no alternative:

Self-injury is often a coping skill when people use it when there is no way out

(Participant 5, RN, non-MHE).

Very commonly self-injury was seen as a way of coping with 'bad things' that had happened to individuals in the past, as illustrated by:

They self-injure because of past trauma when young and many have pretty bad

past histories of trauma. Coping mechanism, but it is nevertheless a negative

coping mechanism to survive and to deal with pain and memories (Participant

12, RN, MHE).

Participants who discussed self-injury as a coping mechanism specifically mentioned that it was a maladaptive or unhealthy coping strategy. In other words:

….maladaptive coping mechanism, poor coping skills related to poor stress

*toleran*ce (Participant 20, RN, non-MHE).

This maladaptive behavior was described by the participants as perceiving the individual to be intolerant of stress. The individual then dissociates, self-injurers, and this in turn relieves their emotional and physical numbness:

Self-harm is an emotional physical alternative way of coping. It's a way of

dealing with issues in a maladaptive way. It internalises distress though….the

person is intolerant of stress and feels emotionally and physically numb and

only self-harming can help them feel again (Participant 9, RN, non-MHE)

Additionally, the behaviour of self-injury was believed to be maladaptive in that the behaviour was executed in order to suppress emotions. Through the suppression of emotions therefore, self-injury was seen as another way of communicating that they are stressed. So instead of communicating that stress directly, the individual indirectly communicate this distress through self-injuring. In other words:

Self-injury is an emotional physical alternative way of coping. It's a way of dealing with issues in a maladaptive way. It internalises distress (Participant 9, RN, non-MHE).

Participants expressed their regret and felt remorse when an individual self-injures and felt sad that the individual could not find healthier ways of expressing emotions. In other words:

*I think it's sad they can't find a less hazardous way of communicating distres*s (Participant 4, RN, MHE).

However, the participants acknowledged there are various reasons that each individual self-injures. Sometimes those reasons serve as punishment towards the individual's selfhood and the anger they feel towards themselves. In other words, the individual punishes themselves for feeling a 'bad' person:

It regulates stress and serves as a form of punishment. Like communicating something bad occasionally as well as anger toward the self. Old patterns of self-expression inherent (Participant 19, RN, MHE).

These examples of participants' beliefs reflect that expression of pain is a means for the individual to communicate distress and discomfort. There are different ways that this self-punishment can be expressed as illustrated in the following:

Causing others to 'hurt' the individual is not merely presenting oneself as vulnerable or being involved in physical assaults, but by behaviour that seeks the nurse to collude with the individual regarding the 'badness' within that requires punishment or behaving in such a self-injurious manner that the nurse rejects the individual as the self-injury is seen as abhorrent (Participant 9, RN, non-MHE).

So what I am saying is that there are different ways using any mechanism: through physical or emotional (including neglect) or punishing self or causing others to hurt them. (Participant 23, RN, MHE).

This example illustrates the self-perpetuating nature of self-injury:

The individual inflicts pain upon themselves because of their belief of intrinsic 'badness'. They alienate the nurse by the manner in which they use time to talk about their self-harm urges or alternatives to harming and then still go off and self-harm… this behaviour alienates them from the nurse reinforcing the need to be punished and causing others to hurt them (Participant 19, RN, MHE).

The notion that the reason for individuals to self-injure is because not only are they communicating stress of some sort, but that they are also 'bad people' and therefore have to be punished. This illustrates the complexity of the phenomenon that was identified from the data.

Self-anger and self-punishment was also noted by participants as a meaning behind NSSI. As noted in the example given by the following participant, self-injury serves:

....as a form of punishment. Like communicating something bad occasionally as well as anger toward the self (Participant 19, RN, MHE).

This notion of anger and self-punishment was primarily mentioned only by MH participants. There was however, one non-MH participant who supported this claim as indicated by the following statement:

There are many meanings for self-injury; tension, anger, hatred towards the self (Participant 21, EN, non-MHE).

Interestingly the non-MHE RN and EN groups offered a further explanation as to why individuals self-injury. That is, individuals self-injurer purely because they are seeking attention through this act:

…I think [NSSI] is also attention-seeking (Participant 24, RN, non-MHE).

This perception of attention seeking was not expressed by the MH groups of nurses. An alternative explanation for why people self-injurer expressed by the participants was that it was a cry for help:

The meanings people have for self-harm are basically a cry for help (Participant 25 (EN, non-MHE).

This further emphasises the interpretation that this cry for help relates to the perspective that the individual cannot express their needs in any other way and so they

self-injure. How this is slightly different to attention-seeking behaviour and ultimately the reason why people self-injure was provided by a mental health RN:

Self-injury is not a cry for help. Also, it is not attention-seeking. The person has to do it to regain control of emotions and peace of mind (Participant 12, RN, MHE).

Others supported this notion that self-injury was a strategy to regain control. It is clear from the following however, the complex effect that a patient with self-injury had on nursing staff:

For the self-harmer to present to the ED after an episode of self-harm it's yes and no…. depends on the context of the episode and the extent of the injuries. If they are a regular presenter it can often raise the anxiety levels of junior staff and nurses. But as I see it self-harm is used as a means for the individual to regain control (Participant 15, RN, MHE).

This regaining of control was viewed by many of the participants as being very personal and a more passive perception often described by participants as the private nature of NSSI. The possible reasons and implications of the secrecy around NSSI as well as the extent of the issue is clearly articulated in the following:

Many people who self-harm do so in private and don't want to go to hospital because they either see self-harming as a private thing, or they had terrible experience in the ED. I know a regular patient who was an RN, and after cutting she used to suture herself at home. This was again [because she] viewed self-harm as a very personal and private thing and her NSSI was treated so negatively in the ED (Participant 12, RN, MHE).

Such is the extent of the private nature of the behavior that the individual may not in fact seek medical treatment for sometime. The effect of this is quite concerning:

Self-injury is basic to common distress. Some people do it privately and never come out, or come to the ED until 3-4 years after beginning to self-harm. They often have limited support and limited communication with the outside world (Participant 22, RN, non-MHE).

The concern that some participants had high levels of distress could result in a suicide attempt. When asked about the relationship between suicide and NSSI, responses were often ambivalent and confused, regardless of whether the nurse had a mental health education or not. Ultimately, responses were divided nearly evenly among participants, half of which felt that individuals who engaged in NSSI did not have higher suicide risk, and the other half felt these individuals had a higher suicide risk. The following illustrates the former view:

Self-injury and completed suicide later on? I don't know… Self-injury is not an act of suicide for them. It's a coping mechanism(Participant 18, RN, non-MHE).

In contrast is the opposite viewpoint expressed in this comment:

Higher, I would imagine risk factors for suicide…among patients who self-injure is higher (Participant 22, RN, non-MHE).

Most participants who did not believe individuals who self-injured had a higher risk for suicide pointed out that NSSI and suicide were very different issues. The fact that participants could see the difference in the relationship between suicide and self-injury is evident in the following:

Completed suicide risk factors and self-injury are difficult to say as self-injury doesn't have a lot to do with suicide attempts. Self-injury has a different meaning (Participant 10, RN, MHE).

Nurses from both groups claimed that when individuals who had a history of self-injury did complete suicide, it was more likely to have occurred accidentally. In other words:

I think people who self-injure complete suicide more by misadventure or accident (Participant 16, RN, MHE).

National data helps inform this complex topic by indicating that self-injurers may be at higher risk for escalating self-injury and suicide by misadventure then occurs or can exist (RANZCP, 2014). Data from this study also supports the idea that self-injury is distinct from attempted suicide. Further, that self-injury is often used to relieve stress or as an alternative to suicide. This was described by the study participants earlier when discussing the meaning of NSSI, and in fact can be used by the individual to prevent suicide.

6.2.3 You Are Wasting Our Time

The third thematic category revealed from the analysis reflected the nurses' attitudes toward individuals who self-injure. Although nurses were not explicitly asked how they would characterise their attitudes towards individuals who self-injure in their workplace, these attitudes were captured in various responses to the interview questions: "Do you feel any pressure to work with individuals who self-harm in any certain way?" and "What is the culture of your workplace towards NSSI?" Of the nurses who spontaneously discussed attitudes of co-workers, the overwhelming

majority characterised these attitudes as negative, regardless of grouping (RN/EN, MHE/non-MHE). Co-workers were often viewed as impatient, uncaring, and judgmental towards individuals who self-injured. How these negative attitudes were expressed by co-workers is illustrated here:

In the mental health system there is more negative pressure. The patient is pre-judged towards their self-harming behaviours. The reasons for this are complicated. Nurses are dismissive, over reactive, overinvolved in a behavior that is not therapeutic or helpful (Participant 15, RN, MHE).

The effect that these negative attitudes can have on the individual who self-injurers is clearly illustrated:

The culture where I work is very much "You are wasting our time!"…"You shouldn't be here". A lot of patients who present to ED [Emergency Department] are…seen as low priority and the nurses feel frustrated with them (Participant 11, RN, non-MHE).

Participants discussed the fact that experience played an important role in the attitudes of co-workers. In other words, those nurses with more experience generally had a more positive attitude toward NSSI. This was succinctly put by the following participant:

The culture of a workplace varies with levels of experience. Junior staff are afraid and traumatised by self-injury and therefore more negative. Older staff [are] more contained than younger staff and [are] overall more positive (Participant 23, RN, MHE).

Part of the reason for this negativity of the participants towards NSSI may be related to workplace culture. When the participants were asked: "What is the culture of your workplace towards NSSI?" the majority of nurses, irrespective of which group they belonged to, characterised the culture in their workplace as negative. This is reflected in the following comment:

*The culture of my workplace is very judgmental and very negativ*e (Participant 12, RN, MHE).

This negative workplace culture detrimentally affected how the nurses viewed those that self-injure. The extent of this sentiment is illustrated here:

The culture in the place where I worked was to use your own opinion but that self-harm was basically attention-seeking, but I don't think it is, I think they are ill (Participant 13, EN, non-MHE).

An interesting observation made by one of the participants was however, that Australian units were not as bad as elsewhere in the world:

The culture of the unit I trained in the UK was very negative: "Oh, not another one!"…"I have to go and dress this wound"… "Another PD (personality disorder)*"…and so on. The culture in Australia though is not so bad. Not an awful lot of support offered here and there is no focus on how to help people who self-harm* (Participant 10, RN, MHE).

Further, this negative work climate was reportedly passed on to the new students and staff. This ensured that the negative culture was perpetuated and therefore made it difficult to change this negative culture:

The culture where I work is very negative. It is embarrassing at handovers for young, new staff and student nurses as the negativity towards people who self-harm is perpetuated (Participant 11, RN, non-MHE).

Participants described how the culture could be changed and what needed to be undertaken in order to support the nurses who cared for self-injury patients. This was viewed by nurses as a means of providing a solution to the perpetuation of indoctrinating younger staff members with negative attitudes towards self-injuring individuals. This is exemplified in the following:

The culture of the workplace towards self-harm needs to be balanced and realistic. Each individual needs to be judged according to their own background of their behaviour. The nurse needs to ask can they be safely managed on the ward and how can they be safely managed. There needs to be an open discussion about management issues around self-harm. How effective and/or safe can the ward be? (Participant 15, RN, MHE).

Despite this negative culture, positivity can be turned around with each individual person who self-injures that the participant cares for. Making change is explored by this comment:

The culture is not supportive where I work about self-injury and it is frustrating as we make contracts but generally we have okay talks and interactions with the person who self-harms without feeding into the self-harm itself. We really should have and need here debriefing after serious self-harm (Participant 5, RN, non-MH).

Encouragingly, negativity towards the self-injurer was identified as not being consistent in all cases in all units or services. Some participants commented that there were improved attitudes and a more positive culture in some Australian facilities. It is possible that this may be the result of working in a mental health unit where there is like-minded staff with compassionate care practices. This was described as:

> *I work in an accepting culture regarding self-injury. I support the self-injurer so that they are safe. [It's] not just seen as an attention-seeking thing. [We] work with the person* (Participant 16, RN, MHE).

When the participants were asked: "Do you feel any pressure to work with individuals who self-injure in any certain way?" the response was mixed. Nurses claimed that they had experienced pressure, and characterised this pressure as a positive aspect of their work culture. The work environment was therefore seen as setting positive standards of care:

> *I work in a specialist area that has a common approach to self-injury. This is essential. The environment is secure and takes into account each worker's differing knowledge and understanding of intent of the individual who is self-harming* (Participant 7, RN, MHE).

In general however, respondents who felt pressure in their workplace characterised this pressure as negative. The following demonstrates the workplace indifferences and/or negativity that was experienced:

> *Yes, I feel pressured to treat people who self-injure in a certain way, mostly in a negative way. Other staff see self-injury as simply 'Just another Personality Disord*er' (Participant 12, RN, MHE).

Not only was there negative pressure to care for self-injury patients, there was pressure to have a negative attitude towards such patients from other nurses:

Yes, there is negative pressure towards how to deal with people who hurt themselves. The general influence is to be more negative towards those patients and…less tolerant (Participant 22, RN, non-MHE).

A further example of this was described by many participants who felt the need to provide care and comfort after an individual self-injured, but believed the culture of the environment in which they were employed did not allow them to express such feelings. As an illustration of this, this participant described instances of wanting to provide comfort and positive care, but felt pressured to not *'make a fuss'*. In other words:

There is negative pressure in my workplace "takes one to know one"…"only a PD (Personality Disorder)." I like to talk to the person and offer them comfort. I feel pressured to not make a fuss and not make them feel happy here to do it again. Frustrated with my team-mates not wanting to talk to them. Have to assess context of self-harm (Participant 14, RN, non-MHE).

Interestingly, more non-MHE RNs and ENs than MH nurses claimed to not feel pressured to treat NSSI in a particular way. Naturally, this result was likely due to the fact that non-MHE nurses were less likely to be working in a mental health specialty area. Of the nurses who did not feel pressure, the lack of pressure seemed to indicate a lack of standards of care toward individuals who engaged in NSSI, as illuminated by the quotes below:

I feel no pressure within my work place to deal with deliberate self-injury (DSI) in a positive or negative way: That is, I can deal with SI how I feel is appropriate (Participant 9, RN, non-MHE).

I don't feel any pressure from other nurses to treat them any differently, or in any special way (Participant 2, EN, MHE).

An alternative strategy to help improve the culture of the work environment towards NSSI is to support staff. When the participants were asked if they received adequate support for caring for individuals who self-injure, MHE RNs were more likely than non-MHE RNs and all ENs to perceive adequate support in their workplace. For instance:

Support as a general rule is good… [We] have a proper debriefing. We have a good close knit-team. Depends on where you work whether there is enough support or not (Participant 16, RN, MHE).

However, the majority of non-MHE RNs and the ENs perceived an absence of support:

Absolutely no support (Participant 17, RN, non-MHE).

Surprisingly, there appeared to also be no support on how to care for self-injury patients:

Not an awful lot of support offered here, and there is no focus on how to help people who self-harm (Participant 10, RN, MHE).

The reason why this support is essential is illustrated in the following:

We need a lot more support. Self-injury is very draining to deal with (Participant 18, RN, non-MHE).

What much of this data points to was a lack of knowledge in how best to care for individuals who engage in NSSI. Yet despite this need many participants reported that there was a lack of education about NSSI in their workplace:

[Formal] education about the management of self-injury is very limited, and informal education is very negative (Participant 23, RN, MHE).

We have absolutely no education about how to manage self-harm (Participant 9, RN, non-MHE).

The need for this education was obvious not only from the indirect comments but also direct comments such as:

We need far more education, and lots of extra support especially for junior staff (Participant 5, RN, non-MHE).

6.2.4 Beneficial to Both Individuals who Self-Injure and Staff

There were a number of factors that the participants identified that assisted them greatly in their workplace in caring for those who self-injure. One of these was the triage nurse. The 'triage nurse' is a nurse who has extensive mental health education and experience and is located within all public hospital EDs. This person assists or provides mental health input to individuals presenting to the ED with mental health difficulties including NSSI. The presence of a triage nurse was viewed by the participants to be overwhelmingly positive as well as their interaction with this nurse, as illustrated in the following:

Yes absolutely. Yes, I value the role of the mental health triage nurse in the ED very much so – a very valuable resource. It helps because there is such a shortage of beds, and triage can eliminate the less urgent ones (Participant 3, RN, non-MHE).

Not all of the participants viewed the triage nurse as positive, with one nurse experiencing a negative interaction with the triage nurse. This participant did not blame the triage nurse, but rather other nurses who expected only the triage nurse to care for individuals who presented to the ED after self-injuring.

Triaging usually occurred in the ED department. Not one of the nurses felt that individuals who engaged in NSSI should be denied access overall to the ED, but believed that there should be certain conditions to access. For instance, some claimed that only severe cases should be presented to the ED:

It's not always appropriate for someone who self-injures to go to the ED. [It] depends on the severity of the injury, and whether they need stitches. But if they do go to the ED they should receive absolute equality (Participant 10, RN, MHE).

Similarly, the following examples of the nurses' responses represent the perceptions that ED presentation is not always appropriate:

As an acute presentation to the ED for self-harm… yes and no. If requires immediate treatment yes, but depends on wounds and overdose (that is what they took and when and if they seem honest about what they took), but if superficial self-harm and if not an emergency then should go somewhere else like their general practitioner (GP) (Participant 14, RN, non-MHE).

The reasons why the self-injurer should not present to the ED was perceived by participants to be about the effect on nursing staff:

If they are a regular presenter it can often raise the anxiety levels of junior staff and nurses (Participant 15, RN, MHE).

Some nurses also felt that individuals who engaged in habitual non-severe NSSI should not be presented to the ED for the following reasons:

Emergency presentations exacerbate their presentations. First time, valid presentation to the ED and serious repeaters, okay, but [it's] not valid to present to ED for superficial injuries, especially if they are a superficial repeater (Participant 4, RN, MHE).

Another strategy identified by the participants that assisted with the care of NSSI service users was the use of specialling. This involved one nurse caring for one patient continuously for a period of time. Specialling only occurs when the individual is at extreme risk of self-injury and is a protective mechanism to help manage this risk to the individual of involving themselves in serious self-injury. Most participants, regardless of grouping, felt that one-on-one nursing, or specialling, was only effective under certain circumstances such as short-term care for extremely acute, high-risk individuals. For instance:

Specialling is fabulous in the short-term. Helps keep the person safe as long as necessary (Participant 12, RN, MHE).

Specialling was not without its problems for the patient however, as identified in the following:

Specialling or very close visual observations can be useful in a crisis but very intrusive. Should be short-lived. Needs to be done respectively (Participant 5, RN, non-MHE).

Ultimately, one-on-one nursing beyond these circumstances was seen as a waste of resources, and as reducing the individual's ability to take responsibility for their own actions. This was elaborated by several participants, with examples provided to enhance understanding:

Specialling an acutely at risk patient for 24 hours or less when they are very vulnerable and unsafe, okay, but not for longer as it increases their dependency on the nurse for their own safety, instead of making themselves responsible for their own safety (Participant 11, RN, non-MHE).

Participants also believed that specialling was not appropriate for all patients:

Specialling okay for some people who self-harm, but not always appropriate for everyone. Sometimes it seems to reinforce self-injurious behaviour (Participant 10, RN, MHE).

A further strategy that was used to assist with the care of self-injury patients was the use of 'no harm contracts'. These are either verbal or written contractual agreements that the treating nurse makes with the individual patient to not self-injure. They are often written up as detailed management plans. This contract explores other activities that the individual can attend to if they feel the urge to self-injure is intensifying. The contract may include seeking out a nurse for supportive psychotherapeutic ventilation on a one-to-one basis or distraction therapy, mindfulness techniques (finding self in the here and now), grounding techniques to

decrease feelings of depersonalisation and derealisation and to prevent further dissociation by inflicting non-injurious self-harm (such as putting an elastic band on their wrist and flicking it or rubbing ice on arms or legs where the individual normal self-injures), and investing in a sensory box as a means of distraction or the risk of discharge if the individual is continuing to self-injure. A sensory box contains such items of distraction such as stress balls, spring 'toys', rubric's cubes, and mandalas (art work that has fine and intrinsic lines in which to fill and to colour in). Further, the no-self-harm contacts may include attending all group therapy programmes the individual is capable at the time of attending.

The participants were asked what they thought about these 'no harm contracts'. Overwhelmingly participants saw these contracts as ineffective, and as:

More for the nurse than the patients (Participant 19, RN, MHE).

Other participants expressed similar perceptions of contracts. The reasons these contracts were identified as ineffective are highlighted in the following:

No self-harm contracts are completely useless at some facilities. They are damaging and set the person up to fail, causing shame and guilt. It also doesn't help the relationship with the nurse, as they need to feel they can approach you pre or post self-harm without a contract (Participant 19, RN, MHE).

Many participants felt that instead of these contracts there should be a verbal agreement between the nurse and patient and a completely different attitude to caring for these patients:

No…'no self-harm contracts' shouldn't exist. There should be an agreement with the patient, an understanding. A mindfulness approach…"what are your thoughts of where you are at the present?" Written contracts meaningless. Not therapeutic, can't keep them, and the patient feels guilty when they can't keep them (Participant 22, RN, non-MHE).

The reasons that were identified by the participants as to why the use of contracts was not helpful is illustrated in the following:

If the contract is broken it reinforces negative feelings in the person. They just don't work. More for the benefit of the nurse, not the patient. Verbal deals better but as I said, written contracts not worth the paper they're written on (Participant 23, RN, MHE).

Some nurses however, felt that contracts could be useful, but noted that the usefulness of the contract may be specific to certain cases with a need for flexibility and understanding, particularly when contracts are broken. For example:

Self-harm contracts have some worth and might be useful for some people but not all of the patients who SH benefit from being on a contract - more for the nurse than the patient. The need to self-injure sometimes overrides the contract (Participant 12, RN, MHE).

Even some who claimed to be against contract use felt that contracts could be effective under certain circumstances, namely when freely collaborated upon between individual and nurse, and when used as a flexible tool, rather than a punitive device. One such participant explained no self-harm contracts in the following way:

No self-harm contracts; more [about] covering the nurse than serving a

purpose for the patient. [They are] not that useful for the patient. If done

properly, it needs to be individual, and take time to draft so everyone is aware

of the management plan. Otherwise [it's] useless (Participant 21, EN, non-

MHE).

One of the other strategies used in most units was the use of searches.
Searches of the individual's belongings are undertaken in every mental health
inpatient service and occur on admission. If the individual is thought to be bringing in
contraband items in order to engage in self-injury whilst on the unit then searches of
belongings are repeated as necessary during the admission. Searches of individuals
and their belongings can assist with increasing an individual's safety within a service
as they are then limited with items that they could use to inflict injury with and assist
with safety containment. However, searches are additionally acknowledged by all
participants as invasive. There was a big difference in opinion about how useful these
searches were between the MHE and non-MHE nurses. The overwhelming majority of
MHE nurses felt that searches were necessary for the safety of the self-injuring
individual and others. In other words:

Searches [are] necessary for inpatients as they can be a risk to others and

nurses as well (Participant 15, RN, MHE).

The importance of patient safety was paramount for many of the participants:

Searches of bags when admitted are a good thing as they need to be safe at the

end of the day (Participant 16, RN, MHE).

Some of the participants however, still expressed ambivalence feeling that searches,

while necessary, were invasive. This is clearly illustrated in the following:

> *Searches [are] crucial, but I do acknowledge I feel it… [can make] the person feel worse about themselves, as it is very intrusive. The person can cause really serious self-injury if no search takes place. Although it is dehumanising it is essentially necessary* (Participant 5, RN, non-MHE).

In contrast, the majority of non-MHE nurses felt searches were not necessary. Many nurses explained that it was a violation of the individual's property, and some claimed that if these individuals wanted to hurt themselves, they would find a way regardless. Consequently, participants felt that:

> *Searches of possessions are a waste of time* (Participant 12, RN, MHE).

In addition, participants expressed reticence to search individuals on ethical grounds, explaining:

> *I don't personally believe in searching the person for sharp or dangerous objects as it takes away responsibility from them and decreases their rights. It is also an invasion of their privacy* (Participant 11, RN, non-MHE).

Finally, among the ENs, the perceptions with regard to searches were equally divided. Their thoughts about searches were as follows:

> *[It is] reasonable to search even though [it is] intrusive as need to make the ward environment as safe as you can for the patient and others on the ward* (Participant 2, EN, MHE).

In contrast, one participant felt searches were not necessary:

Searches are intrusive and violating. Need to trust and work with the person (Participant 21, EN, non-MHE).

One EN participant felt searches were necessary in certain circumstances:

I have not come across searches but it sounds like an invasion of privacy, but probably would be necessary if there was a case to search someone but of course with their permission (Participant 25, EN, non-MHE).

6.3   Summary

This chapter detailed the findings of the qualitative, thematic analysis of semi-structured interview data obtained from a sample of 25 nurse participants, which included subgroups of Mental Health-Educated (MHE) and non-Mental Health-Educated (non-MHE) RNs and ENs, as well as Registered Nurses (RNs) and Enrolled Nurses (ENs). From the analysis, four overarching themes were identified and summarised. The four identified themes were: the meaning of NSSI is very complex; somebody's way of explaining their feelings; you are wasting our time; and beneficial to both individuals who self-injure and staff. The following discussion chapter (Chapter 7) will provide an in-depth exploration of these findings related to both previous literature and the research questions of the study.

Chapter 7: Discussion

7.1 Introduction

In this chapter, a synthesis of the research will be presented and encompasses the attainment of the aims of the study, which were to explore the knowledge, attitudes and beliefs of nurses towards individuals who engage in NSSI. This chapter will outline the significant findings from the quantitative and qualitative phases of this study. These findings will then be triangulated and provide a broader understanding of the phenomenon of self-injury that was explored. Triangulation is an approach to research that uses a combination of more than one research strategy in a single investigation (Speziale & Carpenter, 2007). Using this approach supports and integrates the results elucidated by the two methods. It also clarifies information obtained from participants and provides an improved and holistic understanding of how participants understand NSSI and their attitudes, knowledge and beliefs held by the participants towards the self-injuring individual. The triangulated research findings will then be used as a springboard to explore the study insights in terms of the literature. These insights can be broadly categorised into three areas: those that confirm existing knowledge, those that build on existing knowledge, and those that reveal new knowledge concerning nurses' knowledge attitudes and beliefs towards NSSI.

This chapter is set out as follows: first, the research questions are outlined in order to ground the research findings in relation to what this research aimed to achieve. This will be followed by a presentation of the significant findings elucidated from both the quantitative and qualitative analysis of the data. These findings will then be discussed in relation to the literature. The chapter concludes with a discussion on

the strengths and limitations of the study, followed by recommendations in the areas of research, practice and education.

7.2 Research aim

This explorative descriptive mixed methods study examined the attitudes, knowledge and beliefs of nurses employed in emergency departments and adult acute mental health facilities in Australia towards individuals who engage in NSSI. The research questions guiding this study were:

1. What are the attitudes of nurses towards NSSI?

2. Is there a difference in attitudes between non-mental health educated (non-MHE) and mental health educated (MHE) registered nurses towards self-injurers who present to an emergency department or mental health facility?

3. Is there a difference in knowledge between non-MHE and MHE registered nurses RNs) towards self-injurers?

4. What is the relationship between the years of experience of nurses and their attitudes towards self-injurers?

5. Is there a difference in the attitudes between enrolled nurses (ENs) and registered nurses (RNs) towards self-injuring individuals?

7.3 Quantitative Findings

7.3.1 Demographics

Participants who were RNs and ENs holding MHE or no MHE were assessed and their attitudes, knowledge and beliefs explored using a combination of the ATDSHQ (McAllister et al., 2002b) and the SHAS (Patterson et al., 2007). Prior to the survey 10 demographical items were obtained. The significant findings from the

quantitative phase of this study were as follows. The mean values for all variables were females 76.7% and RNs 88.4%. From all RNs and ENs the average age was 40-59 years with 16 years or more nursing experience (66.3%). More males were employed with a mental health qualification (85%) compared with females (61%) (p = 0.004). For mental health nurses 66.3% held a mental health qualification with 41% having 16 years or more of mental health nursing. Most of the participants were employed in public and metropolitan services (83.1% and 70.9% respectively).

Exploring the demographic variables across the two groups of interest for this study, MHE and non-MHE nurses, significant differences were identified between the two groups. Looking at gender and MHE and non-MHE status, a cross tabulation of the two categorical variables revealed a significant relationship (p = 0.004), indicating that a strong majority of males held a mental health qualification (85%), compared to 61% of the female nurses in the sample. Cross tabulations of age groups (chi square = 0.184, p = 0.912), RN or EN status (chi square = 1.288, p = 0.256), and general nursing experience/years worked (chi square = 10.325, p = 0.067) failed to reveal any statistically significant relationship with mental health nursing qualification, with p-values over 0.05. Comparison of years of mental health nursing experience, however, demonstrated a predictable relationship with a significant chi square (p = 0.000). Cross tabulations of these same variables with the EN versus RN status in order to reveal any differences in the demographic variables according to nursing status, revealed no statistically significant relationships with gender (p = 0.186), age (p = 0.389), years of experience (p = 0.074), and years of mental health experience (p = 0.338).

These results are comparable to the statistical data for nurses in Australia (Australia Health Practitioner Regulatory Agency, AHPRA, 2014) with four in ten general nurses and ENs being greater than 50 years of age. In total there were 256,794 RNs and 59,112 ENs registered to practice in 2014 (AHPRA, 2014). This is comparable to the proportion of RNs and ENS for this study with 88.4% of the participants registered RNs and 11.6% ENS.

According to Mental Health Services in Australia (MHSA, 2015) 1 in 16 nurses (a combination of RNs and ENs) employed worked in mental health. Of these, four in five were RNs and one in seven was ENs: similar to the profile of the general nursing workforce and the findings of this study. The average age of mental health nurses was 47 years with three in five (61%) being 45 or older, and greater than 25% were 55 years or older with less than 1 in 20 (4%) being 65 or older (Australia Institute of Health and Welfare 2015). Male gender consisted of 30% of MHE nurses and female gender was cited as 69% (AIHW, 2015). These demographic findings for mental health nurses in Australia are similar to the data collected for partcipants in this study.

7.3.2 Knowledge and Attitudes

The next part of the research was to assess the knowledge and attitudes of this group of nurses towards NSSI and compare the various groups using the self-injury attitude scale. The nursing groups were defined as MHE or non-MHE according to whether they had mental health nursing qualification or not. The results indicated that the attitudes of MHE and non-MHE participants towards NSSI were both positive (MHE 130.78 (SD 12.1), non-MHE 129.26 (SD 11.9), and combined 107.5). In

addition, there was found to be no significant difference in attitudes between the two groups.

This was further broken down to those working in ED and mental health facilities. Firstly for those working in ED, the results revealed that there was no significant difference in mean attitudes and knowledge scores for MHE and non-MHE participants in ED (MHE 130.4, SD 11.22 and non-MHE 126.58, SD 12.89). These findings, however, may be the result of the small sample size for those working in ED. As for those working in mental health facilities, there were found to be no significant differences in terms of attitudes between the non MHE and MHE nurses (MHE 130.78, SD 12.1 and non-MHE 129.26, SD 119). There were however, significant differences found in the mean knowledge of NSSI scores with MHE mean (27.59, SD 2.85) being greater than the non-MHE mean (25.66 SD 2.73) ($p < 0.001$). Analysing the items in more detail between MHE and non-MHE participants revealed significant differences for the nine survey items: 1, 2, 9, 26, 27, 28, 29, 32, and 36. These items generally asked about beliefs (items 1, 26, 27), morality (items 9, and 28) and knowledge (items 2, 29, 32, 36). MHE participants scored significantly higher than non-MHE participants. All items were positive regarding attitude and knowledge except item 16 (I blame myself when individuals in my care self-injure). These results may be reflective of an increased frequency of dealing with these individuals among MHE participants compared to those non MHE nurses and the resultant participants' feelings of responsibility for the care of their patients.

Further analysis was undertaken to assess whether there was a relationship between the years of experience on the attitudes and knowledge towards NSSI. The findings indicated that there was no statistically significant relationship between years

of experience as a nurse, or more specifically as a MHE participant, and total

attitude/knowledge score. Correlation analysis revealed no statistically significant

correlations between total attitude score and years of MH nursing experience or

overall years worked as a nurse.

Lastly explored through the quantitative analysis was whether there was a

difference in attitudes towards NSSI between RNs and ENs. The results revealed that

the RN had a stronger idea that NSSI was a behavioural disturbance and not a mental

illness per se however, ENs generally believed that NSSI was a severe mental illness

(RN 134.1, SD 12.3 compared to ENs 129.6, SD 11.53). However, there was found to

be no significant difference in total attitude score between RN and EN (p=0.182). This

indicates that overall RNs and ENs saw NSSI somewhat differently but this difference

was not statistically significant.

7.4 Qualitative Findings

There were four distinct themes identified from the analysis of the qualitative

data, firstly that the meaning of NSSI is very complex. All participants had different

definitions to the meaning of NSSI but as a whole felt that NSSI meant different

things to different individuals who self-injured. Most of the RNs believed NSSI was a

behaviour whereas the ENs believed NSSI was an illness, even a severe mental illness

of its own. It was revealed that MHE participants had a more realistic view of NSSI

compared with non-MHE participants.

Theme Two revealed the belief that NSSI was a person's way of explaining

their feelings. The participants as a whole believed NSSI was a communication of

stress. That is, when the individual is stressed NSSI becomes a release of tension, and

generally a stress release strategy. Further, it was revealed from the data that NSSI was a coping mechanism, about regaining control and very much a private matter. MHE participants felt NSSI was self-perpetuating and viewed NSSI as self-punishment and anger as opposed to non-MHE and EN who viewed NSSI as attention seeking behaviour. Further, non-MHE participants felt self-injury was the individuals wish to inflict physical harm towards themselves compared to MHE participants who saw self-injury as a controllable behaviour. This again supports the fact that MHE nurses had a more realistic view of NSSI.

The third theme identified from the data was that participants believed that self-injury patients were wasting nurses' time. This indicated that generally participants had a negative attitude towards individuals who engaged in NSSI and prejudiced such individuals. More experienced nurses were found to have a more positive attitude towards the self-injurer. In contrast, the junior participants were afraid of self-injuring behaviour. Most participants reported that the workplace culture was negative and judgemental and viewed the individual as 'not ill'. This attitude was found to be passed onto new staff and students. This perpetuated the belief of negativity towards mental health which is supported in the literature (Gough & Happell, 2009). Some participants however, viewed caring for such individuals as more positive. Participants further reported that they felt pressured to negatively treat NSSI and not to make a fuss. Not all participants, though, felt pressured to treat NSSI negatively. Most participants believed there was a lack of support and lack of education in their workplace around NSSI.

Beneficial aspects to both individuals who self-injured and staff who cared for such individuals was the theme that emerged last. The participant generally reported the ED was not the most appropriate environment for the self-injurer to present to and

should only be used if there were severe injuries. This was because ED exacerbated their presentation. The participants felt however, that the MH triage nurse who operated in the ED was immensely beneficial as they were a valuable resource for others.

The use of specialling was viewed by many of the participants as being a waste of resources and not always appropriate. This was because it was intrusive and reduced the individual's ability to take responsibility for their own actions. In addition, no self-harm contracts were seen as ineffective and useless as participants believed it set the individual up to fail. Alternatively participants felt there should be a verbal agreement that was collaborated and flexible with the individual and that this could be seen as a useful tool to engage safety. There was a marked difference in attitudes towards searches between the groupings, with MHE participants believing that searches were necessary for safety compared with non-MHE participants who felt they were not necessary, were invasive and a waste of time.

7.5 Triangulation

7.5.1 Attitudes

The quantitative findings indicated that there was an overall positive attitude of these participants to NSSI. There was also found to be no significant difference between the years of experience and the attitudes to NSSI. In contrast to this was the qualitative findings which overall indicated a more negative attitude to NSSI but also indicated that the more experience a participant had, the more positive an attitude they had to NSSI. Those participants with less experience, in contrast, had a more negative attitude to NSSI.

From the qualitative data, the participants overwhelmingly identified that their work colleagues were negative towards self-injury individuals. Colleagues were reported as being inpatient, uncaring and judgemental towards individuals who self-injure and saw them as wasting nurses time. Part of the reason for this negative attitude expressed by the participants was the negative workplace which perpetuated this attitude and in itself was perpetuated. This offers an explanation as to why nurses have such a negative attitude to self-injury.

Demographic data, apart from knowledge and years of experience collected for this study, was not tested as to whether it may have been a significant factor influencing nurses' attitudes. Nonetheless, the literature has identified that nurses' attitudes towards the self-injurer was related to a number of demographic and employment factors, such as age, length of experience, and previous education about self-injury (Friedman, et al., 2006; McAllister et al., 2002a; 2002b; McCann et al., 2006; McCarthy & Gijbels, 2010). However, these findings were not supported by Wheatley and Austin-Payne (2009). For instance, the older and more experienced nurses have been found to have more positive attitudes than the younger and less experienced nurses (McLaughlin, 1994; Samuelsson, Asberg & Gustavsson, 1997). Likewise, Bailey (1998) found that the more experienced the nurse was, the more positive their attitudes were towards self-injury patients. The reverse however, was reported by Friedman and colleagues (2006). Conflicting results were reported by Reed and Fitzgerald (2005) who found that 50% of nurses had negative attitudes and 50% positive attitudes towards the self-injuring individual who presented for care. Reed and Fitzgerald (2005) explored attitudes of general nurses in a small Australian rural hospital setting where there was insufficient access to mental health education. In

addition, it was a qualitative study of only 10 participants. Dislike towards individuals

with mental health issues was displayed by these nurses who suggested it was not their

role to deal with NSSI, whilst identifying fear of NSSI as a cause of avoidance. Half

the study participants however, received support and education and believed caring for

mental health service users was integral to nursing. These groups were matched for

educational qualifications. Similarly, the effect of education was found to influence

attitudes with MHE nurses in another study having more positive attitudes towards

NSSI than non-MHE nurses (Karman, Kool, Poslawsky & Van Meijel, 2015). This

was also reflected in the current study and will be discussed further later in this

chapter.

Additionally, as nurses aged their attitudes were found to be more favourable

toward the self-injury individual (McCarthy & Gijbels, 2010). Thse findings support

the outcomes of the current study. Notably, the positive quantitative attitudes of the

partcipants to NSSI and their older demographic, with 63% of partcipants aged 40 to

59 years.This is in contrast to Anderson (1997) who found that nurses aged over 49

years expressed less positive attitudes than nurses aged between 30 and 39. This was

supported in studies undertaken by Warm and colleagues (2002) and Happell,

Summers and Pinikahana (2002) which found that older nurses were more intolerant

and lacking in empathy. In contrast, nurses in a younger age group (21 to 30) and

those with two or less years nursing experience had less positive attitudes and

displayed less confidence in their ability to deal with self-injury (McCarthy & Gijbels,

2010). Other studies unfortunately have not considered age as a variable (Friedman et

al., 2006; McAllister et al., 2002b; McCann et al., 2007).

In relation to gender, studies have shown that female nurses compared to male nurses have more positive attitudes (Mackay & Barrowclough, 2003; Samuelsson et al., 1997). This is supported in another study which found that male nurses felt more irritation towards individuals after acts of NSSI than female nurses (Suominen et al., 2007). This could help explain the findings of nurses attitudes to NSSI for this study, given 76.7% of participants were females.

Most of the studies investigating NSSI have been undertaken in the UK or USA with little if any research in the area of mental health nurses or self-injury especially in Australasia (Gibb et al., 2010). This current study therefore, adds new knowledge to the literature. For those working in the ED, the results revealed no significant diffrences in mean attitudes and knowledge scores for MHE and non-MHE participants. However, limited sample size prevents strong conclusions with mixed findings as qualitative results were overwhelmingly negative. Other research undertaken exploring nurses attitudes to self-injury in ED have included mixed results. For instance, Suominen and Lönnqvist (2007) found that ED nurses had the most negative attitudes towards self-injurers. In an Australian study, Bailey (1994) found nurses employed in the ED admitted to more negative responses than medical staff towards self-injuring behaviour, commonly expressing frustration in the clinical task of caring for individuals they classified as manipulative and attention seeking. Similarly an earlier small quantitative study revealed that the most negative attitudes towards NSSI were in the ED followed by the emergency medical ward and then the intensive care unit (Suokas & Lönnqvist, 1989). Needless to say, nurses were found to be more negative when working under heavy work pressure within the ED and did not have mental health education towards NSSI (Suokas, Suominen & Lonnqvist, 2009).

In contrast, positive attitudes towards NSSI were found by McCann and colleagues (2006) within the ED: gender, age, length of ED experience and in-service education was assessed. Nurses were found to be more positive if they had attended in-service education. This was a quantitative study that utilised a questionnaire on 43 RNs in the ED. In a study where the majority of ED nurses were female aged 25-40 years old, and 50% had substantial work experience, 44% of the nurses who dealt with NSSI, reported that they were as cooperative and sympathetic towards the self-injurer as other individuals (Suokas & Lönnqvist, 1989). Of the 44%, 30% of ED nurses were found to be generally understanding towards individuals who engaged in NSSI behaviour (Suokas & Lönnqvist, 1989). Likewise, another qualitative study found that nurse who were female, older in age and more experienced had more positive attitudes towards the self-injurer (Suominen et al., 2007).

Staff attitudes toward the self-injurer are immensely important as the nurse's willingness to assist an individual after an episode of self-injury affects the content and effectiveness of care. For instance, such was the negative attitude from nurses reported in the literature that it has been stated that occasionally the nurse has refused the individual treatment on the basis that the wounds were self-inflicted and as such not worthy of 'treating' (Pembroke, 1998). In addition, individuals who presented for care and treatment were often discharged without mental health or psychosocial assessments in order to attain current and future risk to self (Suominen et al., 2007). Similarly a quantitative study exploring the attitudes of 115 nurses found that they had the most negative attitudes regarding the need for psychiatric evaluation post NSSI acts (Suominen et al., 2007).

Such was the negative effect of nurses, that has been reported in the literature, that individuals who engage in NSSI perceived that they received poor care in both the ED and within mental health services (McAllister et al., 2002; Starr, 2004; Pembroke, 2006; 2000; 1998; 1995; 1991). The main issues raised by individuals who self-injure concerned the attitudes and behaviours of nurses towards the service user (Palmer & Streven, 2008). Those who self-injure sometimes experience nurses as non-therapeutic and/or unhelpful (Reece, 2005). The care individuals received on occasions, Reece (2005) explained, seemed incompetent to service uses, and the individuals in this study felt misunderstood receiving physical treatments that were interpreted by the service user as punitive.

There are a number of possible explanations as to why nurses tend to be negative to self-injury. It would appear from the literature that the perceived seriousness of the individual may influence the nurse's attitude (Long & Reid, 1996). For instance, the opinions and beliefs expressed by nurses employed in the ED and mental health areas were more negative towards self-injuring individuals than feelings expressed towards individuals who had made a definitive suicide attempt or presented to the ED with any other medical emergency (Long & Reid, 1996). In addition, Long and Reid (1996) reported that nurses who came into initial contact with the self-injurer in triage were hostile and unsympathetic. This was supported by Pembroke (2000). However, the positive response held by the majority of nurses surveyed believed that the self-injurer was not merely 'attention-seeking'. This suggests that the majority of mental health nurses do have the ability to recognise and respond to the seriousness of suicidal communication (Long & Reid, 1996). Furthermore, it was evident that some nurses still perceived the individual to be acting-out in an attention seeking manner.

The current study found that individuals who presented to the ED with acute and severe self-injuries were received with less negative attitudes however, for individuals who represented frequently, or who presented to the ED with very superficial injuries, the nurse was more likely to respond in a negative manner. As predicted by Mackay and Barrowclough (2005) where acts of NSSI were perceived by nurses to be under the individual's control, the nurse was more likely to express higher levels of irritation and less helping behaviour.

Another explanation for this negative attitude could be that these nurses had reached professional burnout. This could be in response to employment in a very acute area with high patient turnover and many years of working in this same environment (Jenkins & Elliot, 2004). This is supported by Jenkins and Elliott (2004) who stated that RNs reported higher rates of workload stress than unregistered staff in the mental health setting. This is consistent with the belief that RNs reported significantly higher workload stress than ENs and approximately half of all nursing staff showed signs of burnout in terms of emotional exhaustion (Jenkins & Elliott, 2004). This is supported by literature that demonstrates that when nurses are burnt out or under pressure the attitudes expressed by nurses are predominantly negative (Hopkins, 2002; Jenkins & Elliott, 2004). In contrast, more positive attitudes are displayed when the nurse has time to listen and be empathetic towards the service user (Husband & Tantam, 1999).

A further explanation to this negativity is offered by Husband and Tantum (2000) who reported that nurses believed self-injury was difficult to manage. In addition, Husband and Tantum (2000) found that that 65% of nurses felt that it was difficult to build a relationship with individuals who self-injured. Studies consistently report that ED nurses felt a high degree of ambivalence towards the self-injurer, and

frustration and distress when dealing with an individual who presents after self-injuring (McAllister et al., 2002b). Despite these feelings being subconscious, individuals may sense rejection or hostility and this in turn may prompt further acts of self-injury or completed suicide (Hemmings, 1999; McAllister et al., 2000b).

Nurses can develop misconceptions and distortions about self-injury through a lack of education. This is not helpful when dealing with the individual who self-injures and leads to negative attitudes towards NSSI. These myths and misconception can include NSSI always resulting as a symptom of personality disorder particularly (BPD), that NSSI is the opposite of being suicidal, that inpatient care is the best practice for preventing further episodes of NSSI, that 'attention-seeking' behaviour is the same as 'acting-out' behaviour, and that nurses cannot assist an individual who self-injures as the individual's needs are too complex (McAllister, 2003b). It is interesting to note that although most nurses view NSSI as a symptom of BPD, other personality disorders exhibited NSSI as well and this fact is either not known, or not acknowledged, by the nurse (Common Treloar & Lewis, 2008). This reflective exercise described by McAllister (2003b) as the 'think aloud exercise', assists the nurse encounter negative attitudes and making them more positive as these attitudes are dominant and deeply embedded. The current thought about NSSI is that self-injury is protective, has many meanings, but assists the individual defend against overwhelming emotions and feelings of past trauma and to communicate conflict that rests inside the individual (McAllister, 2003b). NSSI is rarely about a wish to die, but more about survival especially in the short-term. It acts to effectively signal distress. NSSI is a coping mechanism, which can become habitual, and with time and outpatient psychotherapy, can be replaced with behaviour that is less destructive and

more soothing. With support, the individual can utilise and build a coping repertoire so that self-injury can be used as a last resort instead of a first resort (McAllister, 2003b). It is evident from not only the findings from the current study, but also the literature, that nurses need to be made more aware of this fact.

Education aimed at targeting negative attitudes and stereotypes may improve therapeutic optimism that encompasses the underlying belief that all individuals are capable of change, and the individual has unique experience (McCann et al., 2007). For instance, a study found that nurses with greater than four years of postgraduate education reported overall positive attitudes towards those who engaged in NSSI and had a diagnosis of BPD (Purves & Sands, 2009). McCarthy and Gijbels (2010) also found that nurses who were undertaking postgraduate study and those who were further academically advanced, showed more positive attitudes towards the self-injurer. Likewise, education has been shown to improve attitudes in a sample of MHE nurses towards NSSI in a study by Samuelsson and Asberg (2002). Similarly, Patterson and colleagues (2007) found that MHE nurses and those who had previous education about self-injury were found to have more positive attitudes than general educated nurses and those who had no self-injury education at all.

In contrast, nursing students who have much less education are generally reported to have a negative attitude to mental health nursing (Gough & Happell, 2009). The other issue here is that the amount of mental health education nursing students complete varies significantly from one university to another ranging from 30 to 160 hours over the three years in Victoria, Australia (Happell, 2009). It has also been reported that there is very little attention given to the identification and management of NSSI in education programs (McCann et al., 2007). This may

contribute to the negative attitudes due to anxiety the nurse feels around NSSI. Nurses surveyed by Friedman and colleagues (2006) felt that the importance of further education and training in managing NSSI was crucial. Friedman and colleagues (2006) concluded that the declining positive attitudes to NSSI and longer experience of ED nurses, support the urgency of necessary training and support for nursing staff who regularly manage individuals who engage in NSSI. Despite the fact that the subject of NSSI is emotive and involves many conflicts and dilemmas for all nurses, the average amount of education received in undergraduate and even post graduate courses is minimal (Common Treloar & Lewis, 2008). This suggests that this is a much neglected area. Curriculum development needs to encompass the subject, be aware of the deficiency and cover the subject more comprehensively in professional education from undergraduate courses (Turnbull & Chalder, 1997).

The findings from Gibb and colleagues (2010) study indicated a need for additional work and education for nurses working with individuals who self-injure. While overall attitudes in their study were not exceptionally negative, confidence was low, and there was a strong desire for more education and focused training within the ED, medical services and mental health areas (Gibb et al., 2010). It is interesting to note that in Gibb and colleagues' study, those nurses with most education in NSSI (MHE nurses), did not score more positively than the two other areas, which was in keeping with the current findings of this study. Gibb and colleagues (2010) concluded that this finding suggested that more education is necessary for all nurses working with NSSI.

7.5.2 Knowledge

The quantitative results indicated that the MHE had more knowledge compared to the non-MHE nurses. In contrast, findings obtained from the qualitative methodology analysis indicated that participants generally displayed lower levels of knowledge towards NSSI. This was demonstrated by the fact that the participants gave a variety of definitions that were not necessarily accurate, or expressing a realistic view of NSSI. There was also a distinct difference in understanding of NSSI if the participant was a non-MHE compared to an EN. The non-MHE group believed that NSSI was a behavioural component of an individual's presentation whereas the ENs believed NSSI was a severe mental illness. Additionally, MHE participants had a more realistic view of NSSI compared to non-MHE participants. In other words, the MHE believed that NSSI was a behaviour compared to the non-MHE who believed that, although being a behavioural component of the individual's presentation, the behaviour was attention-seeking.

This demonstrated that there was a potential lack of knowledge regarding NSSI for this group of non-MHE and EN. Similarly McAllister and colleagues (2002b) and Patterson and colleagues (2007) found in their research that nurses required more education about the management of NSSI and lacked confidence in the management of this phenomenon. In contrast, a study assessing whether nurses felt they required extra education about NSSI in managing the self-injuring individual, 44% thought education was very important and a further 48% believed education was moderately important (Friedman et al., 2006). Only 5% believed it was not important to obtain further education about how to manage self-injury (Friedman et al., 2006).

Other studies that highlighted the need for education were discussed in the previous section.

Inadequate participants' knowledge can be explained in several ways. One explanation is the different levels of education regarding mental health between an EN and RN. An EN course consists of completing a certificate IV in nursing leading to registration as an EN in a diploma structure for 12 or 18 months, depending on the facility. Completion of a diploma in nursing at TAFE in 18 months includes 26 units and 400 hours exposure to mental health nursing. Enrolled nurses upon completion can lead onto a diploma of community nursing (mental health) which specialises in mental health nursing (Navitas Health Skills, Australia, 2014). This curriculum contains all content focused on mental health exposure leading to the EN being able to be employed in specialist mental health areas. The amount of education specifically on NSSI for ENs however is not found within the course curriculum and must be assumed to be negligible.

In contrast, an RN is required to complete a 3 year bachelor of nursing course in order to register as a RN. The mental health course content varies depending on which year they started within the bachelor of nursing programme. For those students who began prior to 2014, they had 15 units of mental health in second year and those starting after 2014 they had 30 units of mental health in third year. (RMIT University, 2014). Antedotal evidence indicates that other universities have less mental health content in their programmes than this. The amount of mental health theory nursing students complete, however, varies significantly from one university to another, ranging from 30 to 160 hours over the three years in Victoria, Australia (Happell,

2009). This again equates to a minimal amount of education in the area of mental health but marginally better than that in an EN programme.

For universities such as the University of Sydney for example, the majority of exposure to mental health nursing occurs within their post graduate course. This includes a graduate certificate (one year), graduate diploma (12 months) and master of nursing (18 months) which contain 2 units, 4 units and 9 units devoted to mental health nursing respectively (University of Sydney, 2015). The graduate certificate contains a total of 4 units. These programmes, therefore, contain more mental health content then the EN or BN programmes.

A second explanation regarding the deficiency in knowledge is the fact that there appears to be very little attention given to the identification and management of NSSI in nursing curricula (Happell, 2009). Despite the fact that the subject of NSSI is emotive and involves many conflicts and dilemmas for all nurses, the average amount of education received in undergraduate and even post graduate programs is minimal (RMIT University, 2014; University of Sydney, 2015). This is supported by McCann and colleagues (2006) who found that nurses who responded to NSSI did not have adequate educational preparation regarding the management of individuals who self-injured. Non-MHE nurses however, were shown to have had the lowest level of knowledge about NSSI, with the majority of nurses requesting more education in this area (McAllister et al., 2002b; McCann et al., 2007). This was supported in this study where the Phase Two respondents all stating they felt a need for more education about the identification and management of NSSI. This suggested that this is a much neglected area, and may well contribute to the negative attitudes due to anxiety the nurse feels around NSSI to the individual service user. Nurses surveyed by Friedman

and colleagues (2006) felt that the importance of further education and training in managing NSSI was very or moderately important. Few felt neutral about further education.

Education has been shown to improve attitudes in a sample of mental health nurses towards NSSI in a study by Samuelsson and Asberg (2002). This finding was supported by Patterson and colleagues (2007) who found that MHE nurses and those who had previous education about self-injury had more positive attitudes than general educated nurses and those who had no self-injury education at all. Needless to say, a nurse who has undertaken further studies at the postgraduate level specifically into mental health, has a great deal more knowledge than those who have not. Friedman and colleagues (2006) concluded that the declining positive attitudes to NSSI and longer experience of ED nurses, support the urgency of necessary training and support for nursing staff who regularly manage individuals who engage in NSSI. Curriculum development needs to encompass the subject, be aware of the deficiency and cover the subject more comprehensively from undergraduate to postgraduate courses (Turnbull & Chalder, 1997).

The mean responses to the 43 items on the survey instrument, although not indicating a clinical significance of knowledge deficit about NSSI, did indicate a need from nurses in both the quantitative and qualitative aspects of this study for more education and support when managing individuals who presents to their service after engaging in NSSI. In addition, misinterpretation and misunderstanding of the true nature of NSSI by EN who primarily viewed NSSI as a severe mental illness, was naïve due to their level of knowledge and educational preparation regarding the knowledge behind the many reasons individuals self-injure. This may be the result of

ENs minimal educational preparation leading to a lack of understanding about the meaning of NSSI and understanding the behaviour as a whole. Beyond this core understanding, the wide variation in components of definitions offered by participants may indicate a need for a more commonly accepted definition of NSSI. The data in the current study indicated that those with more knowledge such as MHE participants report a better understanding of NSSI than those who were non-MHE.

7.5.3 Beliefs

This area was better addressed using the qualitative research findings and included a number of aspects of care provided to a person who self-injures. There was a strong theme that emerged from the data that indicated that the nurses believed that caring for a self-injury person was wasting their time. This belief was so entrenched in the system that the result was a negative culture generally towards caring for NSSI that was perpetuated at all levels.

When participants were asked about whether the ED was appropriate for the self-injurer to attend after injury, they reported that when a severe or acute presentation occurred, it was most appropriate to present to the ED. For a habitual presenter, or for a person presenting with minor injuries only however, it was not warranted to present to the ED. This was because presenting to ED potentially exacerbated their presentation. Similarly, 66% of ED nurses in a study undertaken by Suokas and Lönnqvist (1989) believed that individuals who had deliberately self-injured should not be treated within the ED, believing that self-injurers misused the service provided. This is supported by Hopkins (2002) who found that nurses felt their attention should focus on more acutely ill individuals who had medical issues rather than on a person who has self-injured (Hopkins, 2002). This also supports the notion

that there is a strong belief that caring for self-injury persons is wasting nurses time and effort.

Similarly, recent research indicates that there is no evidence that inpatient treatment prevents further episodes of NSSI (van der Sande et al., 1997). Some suggested alternatives had been made by van der Sande and colleagues (1997) who supports that the most effective interventions are prompt assessment and first aid treatment, encouraging healthy alternative and help seeking behaviours to NSSI, provision of an emergency contact card which facilitates prompt and appropriate emergency care, and intense ongoing therapy. Emergency contact cards may be handed to the individual that contains information on sources of help available, triage numbers providing direct access to mental health specialist nurses or team members (McAllister, 2003a; McAlister et al., 2002b). These persons can then provide the individual with telephone crisis support, counselling or arrange for immediate assessment and treatment (McAllister, 2003a; McAlister et al., 2002b). In this manner, the waiting time, stigma, or inconsistency in the quality of care provided by the ED may be avoided (McAllister, 2003a; McAlister et al., 2002b). This in fact may be effective in reducing the incidence of NSSI (Melville & House, 1999).

Other suggestions for the management of NSSI included nurses employed in the ED following simple steps printed on a checklist covering psychosocial and risk assessment, referral to an ED based mental health team member (24 hours a day), training for all ED nurses on assessment, information about local services and provision about follow-up care for the individual regarding wound care on discharge from the ED. Further, safety within the ED should include the provision of a quiet environment in which the individual can be observed not too intrusively by supportive

observant nurses educated to assess risk. Interventions additionally should centre on active and genuine listening skills to assist the individual to feel more recognised (Husband & Tantam, 1999). Effective coping strategies could also be of value as well as strategies about harm minimisation. Individuals who self-injure have generic and unique needs. Interventions need to be implemented on an individual basis. There are many sensitive, holistic and empathetic nurses who can provide care for NSSI individuals even within the time constraints of a busy ED.

The nurse in the ED, despite time restrictions, can still achieve a great deal with an individual in five to ten minutes using sensitivity and psychosocial skills, and assist the individual in transition from ED to discharge. Coming to the end of this episode of care however, can be disappointing for the individual who self-injures and rekindle abandonment and feelings of loneliness, pessimism and helplessness. An encounter with a caring nurse in the ED can be seen by the individual as deeply significant and hard to leave behind (McAllister, 2003a; 200b). Further, it is at this time that the individual may go on to self-injure again. This is when the nurse is needed to assist the individual to move on with optimism (McAllister, 2003a; 2003b) resulting in the risk of further self-injury being reduced. Helpful strategies include a brochure explaining self-injury services, emergencies contact numbers, contacts of therapists who deal with NSSI, follow-up counselling or resource services. Further, if the nurse can convey hope for recovery, then this sense may be internalised by the individual and motivate the individual to seek out ongoing assistance McAllister, 2003b). Additionally participants in the study believed that the presence of the triage nurse was overwhelmingly positive as they were an invaluable resource in the ED.

One of the helpful functions of the triage nurse was that they could eliminate the less urgent self-injury cases, which was crucial when there were bed shortages.

Another strategy that participants identified that they believed assisted them care for NSSI patients was the use of specialling. This strategy was however, only believed to be effective under certain circumstances, including the short term care of extremely acute, high risk individuals. Furthermore, specialling was not always appropriate, seen as intrusive, a waste of resources and reduced the ability of the individual to take responsibility for their own actions. This practice has been deemed to be an ineffective strategy after 72 hours and has been described by Pembroke (1991) as dehumanising. Likewise, O'Donovan (2007) described this as a crude method of ensuring patient safety, is custodial and defensive in nature which is in fact counterproductive leading to isolation. There is little evidence in the literature about the usefulness of nursing a self-injury individual one-to-one (specialling) and this study fills a gap in this respect. One article, however, reported the high cost of specialling and the use of ENs and nurses assistants to provide the one-to-one observation as a means of reducing cost and to look at a better means of ensuring the individual's safety, such as involvement in ward activities (Dick, Grow & Boddy, 2009).

Another strategy identified by the current study participants that they believed was useful was the use of safety contracts, or no-self-harm contracts in an effort to keep the individual safe. Participants, however, overwhelmingly felt that such contracts were ineffective and more for the nurse and set the individual up for failure generally. The participants reported they would rather develop rapport with the individual and use this as a strategy to help keep the individual safe. Further, the

participants were not sure about appropriate consequences for breaking the contract: that is, what would be the consequence if the individual did self-injure after signing such a contract. This is supported by O'Donovan (2007) who believed that these contracts do not prevent self-injury.Although much is spoken about the use of a contract in the area of mental health, especially the inpatient setting, little is reported in the literature. This study fills some of the gap in this area.

The final strategy identified by the participants was the use of searches for items that the individual may use to harm themselves with, especially taking place on arrival to an inpatient setting. Many viewed this as a violation of the individuals' rights and intrusive. This was especially so for non-MHE participants who believed they were not necessary. MHE participants, whilst acknowledging the intrusive nature of searches, admitted that they were necessary for the ongoing care and safety of the individual. A review off the literature on 'no-suicide' contracts however, utilised a study aimed to address the concern by service users and nurses regarding the 'no-suicide' contract (McMyler & Pryjmachuk, 2008). This was described as an agreement that was usually written, between a service user and clinician whereby the individual pledges not to harm themselves. This study only explored no-suicide not no-self-harm contracts (McMyler & Pryjmachuk, 2008). The results of this study revealed that there was a lack of quantitative evidence to support such contracts and that there was strong opposition to the tool from both service users and nurses (McMyler & Pryjmachuk, 2008). This included perceived coercion from the clinician for their own protection and the ethical implications for an individual who is already struggling for control (McMyler & Pryjmachuk, 2008). There again is little in the literature around searches and again this research fills a gap in what is currently

reported in the literature. Most of the participants especially non-MHE and ENs in this study reported searches as unethical and invasive and completed for the safety of the nurse rather than the individual.

7.6 Critique of theoretical framework

This study used the TRA as the conceptual framework. The TRA is a cognitive, socio-psychology-based theory that makes connections between individuals' beliefs, attitudes, social norms and behaviour (Ajzen & Fishbein, 1980). The theory postulates that a person's behavioural action is the consequence of their intention, which was formed and developed over time. According to this model, two main determinants of a person's behaviour that can shape it include the attitudes of the person and the subjective norms, as illustrated in Figure 7.1. Attitudes refer to the personal tendency and belief about the act, whereas subjective norms refer to others and how they are going to perceive and respond to the intended action.

Figure 7.1. *Highlights of the TRA main determinants of individuals' intentions and behaviour (Ajzen et al, 1980).*
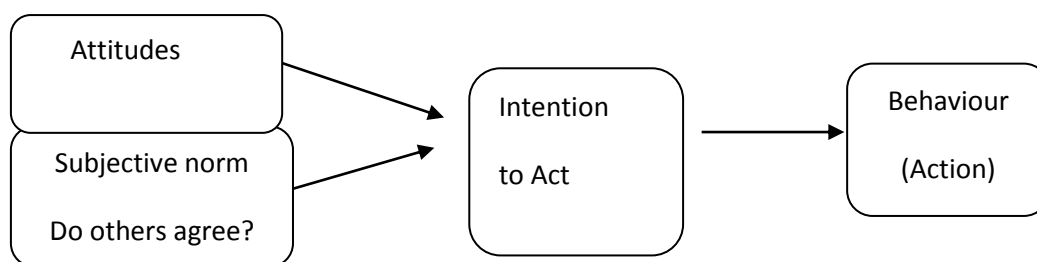
The TRA, as the theoretical background of the current study, was very useful in highlighting certain variables, especially those related to individual factors responsible for the nurses' behaviour. It has guided and enriched the understanding of

the correlations and enhanced justification of the findings. In addition, the model was valuable when enabling a psychological map to be drawn of the associated variables related to the current study, while maximising the researcher's understanding of complex phenomena. Furthermore, in the current study, the model was useful in helping explain the intentions of participants, and to a certain extent, the model was useful in explaining how those intentions came about. This was because the model provided a platform for the researcher to link those influential factors together and evaluate behavioural decisions to inform actions, which has a greater effect on producing intentions and subsequently predicting behavioural actions.

In preparing and developing the interview discussions, the TRA allowed a richer discussion with participants as it connected and linked participants' attitudes and behaviour. This then provided a platform generating further questions and led to indepth justification. For example, in the present study the subjective norm, which is the work place in this case, was most influential on the nurses' attitudes. Thus, most of the nurses' reasoning, when asked, indicated factors related to work place culture. This has led to the conclusion that hospitals, as work place settings, have a paramount influence on nurses' attitudes and consequently their behaviours. These nurses arguably considered other colleagues' preferences and work place norms (subjective norms) in clinical practice far beyond their own beliefs or preferences. In general, the TRA was helpful in explaining the nurses' behaviours and attitudes and how their intentions and actions came about.

A major criticism of the TRA is its individualistic nature; it focuses on individual's actions as opposed to the groups they are a member of (Dutta-Bergman, 2005). In addition, the TRA in the present study failed to fully capture the dynamic socio-cultural complexities of the nurses caring for self-injury individuals, and the

hospitals where they worked. Although the TRA could be useful to explain and predict behaviour based on an individual's beliefs (Fishbein, 2008), the theory does not incorporate the cultural and the organisational factors of groups as direct contributors to attitudes. However, the model proposed here places these powerful factors as background effects. Accordingly, the TRA appeared to be too rational, by not directly considering cultural and organisational factors that value certain order, obligations, consideration and other non-cognitive determinants of human behaviour (Armitage, Conner & Norman, 1999). To be better integrated with the current study, the theoretical model should carefully consider the socio-cultural diversity of the groups and the organisational structure, including the relationships among the groups, as direct contributors towards nurses' attitudes and behaviours.

7.7 Strengths

There have been some recent reviews of the literature regarding NSSI and nurses' attitudes towards this phenomenon (Karman et al., 2014) but little research examining knowledge, attitudes and beliefs of nurses towards NSSI has been undertaken previously. There has not been any research previously exploring ENs attitudes towards NSSI and this study fills a gap that exists in this area.

Another strength of this study was that it used a mixed methods approach and therefore gathered more data. Many of the other studies reported in the literature had not used a qualitative approach. Using mixed methods leads to enhanced understanding of the phenomena. Finally this research recruited nurses from across Australia.

7.8 Limitations

The quantitative phase of this study recruited a small number of participants (172) and as such the results are difficult to generalise to the greater population of nurses. This cohort also consisted of three different groupings, which dilutes these findings further. For the qualitative phase of the study, the number of participants was smal (25) and these results are limited in generalisability.

Regarding participants' responses to semi-structured questioning about the meaning of NSSI, definitions may have varied simply because the participants were asked one open-ended question about the meaning of NSSI. With further probing, they may have offered more inclusive and detailed definitions.

For this study there was one researcher who did the bulk of the analysis under the guidance of two supervisors. Therefore, the epistemological considerations of the one researchers' interpretation of the qualitative data was acknowledged whereas there could in fact be multiple realities to the explanations of the data. The final limitation recognized by the researcher was the potential for bias from the researcher as the researcher has identified herself as a mental health nurse.

7.9 Recommendations

7.9.1 Research

The exploration of nurses' attitudes and knowledge about NSSI has not been evaluated since the late 2000s in both Australia (McAllister et al., 2002b; McCann et al., 2007) and overseas (Patterson et al., 2007; RANZCP, 2004). Since this research was undertaken, some new programs have been introduced, such as sub-clinics within the ED to deal with presentations of individuals who have engaged in NSSI. These

have not been formally evaluated to ascertain whether they have made a difference in knowledge, attitudes and beliefs of the nurses (Eastern Health, 2012). Furthermore, Eastern Health (2012) has developed a program for the management of NSSI which has not been evaluated to date as to whether it has alleviated stress for staff working in the ED and mental health services in Victoria. There is a need therefore, to undertake targeted research of nurses in new programs such as Eastern Health, to ascertain if they have made a difference to the attitudes, knowledge and beliefs of the nurses working in them.

Rates of NSSI vary between countries and cultures (RANZCP, 2004; Schmidtke et al., 1996), but this has never been explored (Hjelmeland et al., 2002). Further research needs to be undertaken in order to explore this area further.

As this research was the first to explore the EN working in mental health, this could be built on with a larger, more specific number of ENs examining their attitudes about NSSI and its management. In addition, undertaking more formal research into the experiences of people who self-injure in order to see the potential effect of the negative attitude, but also to assess their care needs. Finally, developing and implementing a targeted education program for nurses working with individuals who self-injure and assessing the difference that this may have to the nurses following the implementation of such a program.

There is also a need to undertake further research that explores the self-injurers' perspective of their condition and care. The results from this work would provide further evidence to enhance the education of the nurses working in this field of nursing.

7.9.2 Practice

More than 20 years have passed in Australia since the introduction of generalist nursing education and the abolition of direct entry mental health undergraduate programmes. Generalist nurses have more employment flexibility and can work in the area of mental health. Debate continues to the current day regarding skilling up of generalist nurses within mental health curriculum (Happell, 2009). This has led to a focus on considerable research activity on the current workforce problems facing the mental health nursing workforce and the role of nursing education contributing to this crisis (Happell, 2009). Argument focuses on the fact that the physical needs of individuals with mental health issues previously were not adequately met by stand-alone mental health undergraduate qualifications. Further, that the mainstreaming of mental health services into the general hospital system results in non-MHE nurses coming into contact with individuals with a mental illness and who engage in NSSI meaning that a basic knowledge of mental illness and NSSI is fundamental for all nurses (Sharrock & Happell, 2000). This was the rationale for abolishing the direct entry mental health undergraduate program in the first place. The issue has become recruiting adequate nurses and particularly MHE nurses, to work in the area of mental health. The crisis in the recruitment and retention of an adequate mental health nursing workforce is affecting the nursing profession in Australia and is recognised as a serious and longstanding problem, compounded by the stigma associated with this area of practice (Australian Government Productivity Commission 2005). The vast majority of nursing students do not consider mental health nursing to be a desirable career path (Happell, 2009). The students' stated reasons tend to reflect a negative image of mental health nursing and working with individuals who have a

mental illness and thus working with individuals who self-injure (Happell, 2009). These attitudes have essentially arisen from a fear of individuals with mental health issues, or alternatively the desire to specialise in areas of practice considered more exciting and rewarding, such as critical care and midwifery (Happell, 1999). This is consistent with the literature whereby fear of NSSI and individuals who engaged in NSSI led to the nurses' negative attitudes.

In recent times, mental health nursing has become a post graduate qualification (Happell, 2009). However, the nurse needs to be encouraged to enter these program. Recommendations for future workplace recruitment and retention may be to gain industry scholarship for students undertaking post-basic and post-graduate nursing qualifications and encourage the nurse to spend at least two years after completion of the programme in a mental health service or be required to refund the cost of the course to the government. After this period of time, the nurse may relish the field and remain for some time in this nursing field bringing 'new blood' to the profession.

Mental health services have developed transition programmes to attract new graduates and older staff (Cleary, Horsfall & Happell, 2009). Many mental health services have developed such programmes to attract new graduates, nurses with mental health experience without formal qualifications, experienced nurses wishing to move into mental health and nurses returning to the workforce (Cleary et al., 2009). This would skill up nurses and, with increased mental health knowledge, decrease fear towards NSSI as well as towards the individual and increase confidence working with the mentally ill. Hence, this may assist in reducing the nurses' negative attitudes towards the individual who self-injures.

There is a big need to turn around the negative culture that exists in and about, mental health, especially for new staff starting in the area. Specifically there is a need to change the negative culture regarding caring for a person who self-injures. It was clear from this study and the literature that there is a lack of education about caring for NSSI at all levels. Education programmes need to include this as part of their curriculum (discussed further in the next section). It is also about educating the nurses currently practicing. This could be undertaken by conducting inservice sessions in the mental health units using the case study approach, specifically about self-injury and sharing the results of this study. Including this information as part of the orientation for new staff before they have a chance to be influenced by the negative culture, is another recommendation. In addition, presenting the results from this research at mental health conferences as well as publishing the results in mental health journals will assist in distributing this information to a wider audience in mental health.

Another point that became clear from the data is that there is a need to support the staff who are caring for the person who self-injures in some way. This could be done by employing a nurse consultant who is a specialist in self-injury and therefore able to provide knowledge as well as support for nurses.

7.9.3 Education

Self-injury is a growing health problem. Nurses in a variety of healthcare settings play a central role in the care of individuals who engage in NSSI. Negative attitudes towards self-injury are common among nurses (Karman et al., 2014). Healthcare setting and qualification level appear to be influencing factors (Karman et al., 2014). It remains unclear in a recent systematic review of the literature how nurses' age, work experience and gender influence their attitudes towards NSSI

(Karman et al., 2014). Mental health nurses have more positive attitudes towards NSSI than general nurses (Karman et al., 2014) and this is supported by the current study. Curriculum content at both undergraduate and post-graduate level fails to provide nurses with adequate knowledge about NSSI leading to a lack of confidence and fear in managing NSSI and consequently negative attitudes towards this behaviour. As identified above, there is a dire need for education at both the ward level and in curriculum development on self-injury.

It is clear from the data in this study that undergraduate and even post graduate curricula are not providing adequate education on mental illness or specifically NSSI. The nurse is often unsure how to manage the individual with NSSI and intimidated and frightened by this behaviour. This in turn results in a negative attitude towards self-injuring behaviour. There is a need for greater course content in managing NSSI as there is an increasing presentation of self-injurious behaviour to both the ED and mental health facilities. Theoretical preparation prior to exposure to individuals within the mental health system in both second and third year undergraduate level would assist the nurse gain more knowledge about NSSI and precursors to this behaviour. Specific curriculum theory on the management of NSSI would up skill nurses, decrease fear towards NSSI and increase their confidence towards the management of self-injury. This in turn would decrease negative attitudes as a result of fear towards NSSI.

In order to increase the education content of self-injury in nursing curricula there needs to be lobbying undertaken with the mental health professional organsiations who in turn can put in submissions to change the accreditation standards to increase the self-injury content.

Furthermore, presenting the results from this study as well as information of self-injury to nurses can be undertaken through inservice education and orientation sessions. This will increase the knowledge level of the practicing nurses. In addition the results from this study can be presented at mental health conferences and in publications to help inform a wider audience.

7.10 Conclusion

The phenomenon of non-suicidal self-injury (NSSI) is an escalating and perplexing behaviour that has been explored in previous literature without definitive results. Self-injury in the absence of expressed suicidal intent is a greatly unexplored area within mental health nursing. Self-injury can be described as the deliberate destruction of the body without the intent to die, and is a distinct field needing to be seen separately from suicide and para-suicide. There is paucity in the literature regarding the attitudes of RN employed outside of the ED, including MHE nurses and EN attitudes towards NSSI.

The aim of this study was to determine nurses' attitudes, knowledge and beliefs towards individuals who engage in NSSI. This study was designed to address the limited information available in the research regarding nurses' attitudes towards NSSI.

This was a mixed methods exploratory design study using a combination of two well adapted surveys, the Self-Harm Antipathy Scale (SHAS) and the Attitudes Towards Deliberate Self-Harm Questionnaire (ATDSHQ). Nurses who were either RNs or ENs, mental health educated or not, working in the area of mental health or ED were recruited through a number of the professional nursing organisations. A total

of 172 nurses completed the online questionnaire. At the end of the questionnaire

participants were invited for a follow up phone interview lasting 45 to 90 minutes.

There were a total of 25 nurses interviewed. The audio recordings were transcribed

and then the data analysed using thematic analysis.

The results from the quantitative data indicated that the attitudes of the nurses

to NSSI were generally positive. There was a significant difference noted in the

knowledge level between the MHE who had greater knowledge compared to those

who were non MHE. Similarly, the qualitative results supported this difference but at

the same time indicated that there was a lack of knowledge generally from this group

of nurses to NSSI. The qualitative results also indicated that there was generally a

negative attitude of this group of nurses to NSSI. In addition, there was a negative

workplace culture to self-injury. There were a number of beliefs identified from the

participants including the fact that caring for NSSI was wasting their time and

reference to a number of strategies, including specialling and no harm contracts which

were not necessarily useful.

Much of the literature confers with these results on attitudes and knowledge

with this study identifying more the differences between the groups of nurses that

were previously not identified. These results, however, extend much of what is in the

literature on knowledge, attitudes and beliefs of nurses to NSSI. In addition this study

targeted nurses working in mental health units, an area that has had minimal research

to date. The findings from this study point to the need to increase the education of

nurses at all levels in NSSI in order that they have a better understanding and therefore

develop a more positive attitude to NSSI. Through this education, the negative culture

that strongly exists towards NSSI can be changed. Further research to assess the

effectiveness of this increased education and compare to this study should be undertaken.

The limitations of the study could be viewed as too small a sample size for both Phase One and Phase Two. However, the themes expressed in the qualitative data lead to fulfilling a gap in the literature that exists for ENs' knowledge and beliefs about NSSI, the use of specialling, safety contracts, and searches. MHE participants' beliefs and knowledge about NSSI also filled a gap in the literature as most of the research had been conducted in ED.

This study adds to nursing's body of knowledge in order to assist in developing a profile of mental health and emergency nurses' attitudes towards self-injurers and as a result improve outcomes for the service user. This study supports a view that nurses lack confidence in dealing with the self-injurer, recommends further education to nursing staff particularly those employed within mental health or the emergency department. This education should take place at undergraduate, post-graduate levels as well as through inservice education and conference presentations. Further, peer support and case review management strategies should be implement in all workplaces that deal with a high turnover of individuals who self-injure, such as the ED and mental health services. There is also a need for education in the curriculum of ENs that assists with the understanding of mental illness and NSSI and its identification and management.

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Appendix A

RMIT
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21 st December 2011

Julie Vine

Dear Julie

ASEHAPP 57 - 11 <u>VINE</u> Attitudes, knowledge and beliefs of mental health educated and non-mental health educated nurses towards individuals who deliberately self-injure

Thank you for submitting your amended application for review.

I am pleased to inform you that the CREAN has approved your application for a period of **2 Years** to **December 2013** and your research may now proceed.

The CREAN would like to remind you that:

All data should be stored on University Network systems. These systems provide high levels of manageable security and data integrity, can provide secure remote access, are backed up on a regular basis and can provide Disaster Recover processes should a large scale incident occur. The use of portable devices such as CDs and memory sticks is valid for archiving; data transport where necessary and for some works in progress. The authoritative copy of all current data should reside on appropriate network systems; and the Principal Investigator is responsible for the retention and storage of the original data pertaining to the project for a minimum period of five years.

Annual reports are due during December for all research projects that have been approved by the College Ruman Ethics Advisory Network (CREAN).

The necessary form can be found at: http://www.rmit.edu.au/governance/committees/hrec

Yours faithfully,

Linda **Jones**
Acting Chair, Science Engineering & Health
College Human Ethics Advisory Network

Cc	CHEAN Member: Supervisor/s:	Madeleine Shanahan School of Medical Sciences RMIT University
		Lina Shahwan-Akl School of Health Sciences RMIT University
		Phillip Maude School of Health Sciences RMIT University

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Appendix B

INVITATION TO PARTICIPATE IN A RESEARCH PROJECT

PARTICIPANT INFORMATION

Project Title: Attitudes, knowledge and beliefs of nurses towards individuals who engage in non-suicidal deliberate self-injury.

Dear Nurse,

You are invited to participate in a research project being conducted at RMIT University by Ms Julie Vine PhD candidate and Associate Professors Lina Shahwan-Akl and Phillip Maude as supervisors. Please read this sheet carefully and be confident that you understand its contents before deciding whether to participate. If you have any questions about the project, please ask one of the investigators.

Who is involved in this research project? Why is it being conducted?

- This study is being conducted as a requirement in order to complete a PhD in nursing.
- It is exploring the attitudes, beliefs and knowledge nurses working within the emergency department and/or acute adult inpatient mental health services towards individuals who present with non-suicidal deliberate self-injury.

- The study is being supervised by Associate Professors Lina Shahwan-Akl and Phillip Maude at RMIT University.
- The project has been approved by the RMIT Human Research Ethics Committee.

Why have you been approached?

You have been approached as you are registered or enrolled as a nurse with ARPHA, and are members of the ACMHN, AENA, SPNA HACSU and/or the ANF, and work within an emergency department or acute adult mental health inpatient service.

What is the project about? What are the questions being addressed?

- The project explores the attitudes, knowledge and beliefs nurses have towards individuals who present to your service after engaging in non-suicidal deliberate self-injury.
- It is anticipated that if a perceived lack of support for nurses working in these areas, or that more knowledge is required to assist nurses working more confidently in these areas, recommendations will arise for effective protocols and education packages.
- All participants who attend the face-to-face interview will be anonymously coded.

If I agree to participate, what will I be required to do?

The participant will be required to complete an anonymous on-line questionnaire via the Qualtrics web-site. Completing the survey should take about thirty (30) minutes. An invitation will then be made to attend for a face-to-face interview for follow-up questions to gain an in-depth understanding of the nurses' attitudes, knowledge and beliefs about self-injuring individuals. This face-to-face interview will also take up to fifty (50) minutes. Information given at the face-to-face follow-up questionnaire may be tape recorded and/or transcribed. All interview data will be anonymous and confidential and the interview data will be de-identified and common themes will be extracted for analysis and discussion. A copy of questions that will be asked at the face-to-face interviews will be available prior to the interview from the researcher if requested. No unpleasant feelings or inconvenience should be encountered by participants during the on-line survey or face-to-face interview.

What are the possible risks or disadvantages associated with participation?

- There are no anticipated risks associated with the on-line survey or face-to-face interview.
- If you feel distressed or uncomfortable during the interview process or if you are unduly concerned about your responses to any of the survey items, you can contact the researcher Ms Julie Vine on _____ or the study supervisors Associate Professors Lina Shahwan-Al on lina.shahwan-akl@rmit.edu.au and/or Phillip Maude on phillip.maude@rmit.edu.au at RMIT. Additional supports may include your GP. These people can discuss your concerns in a confidential manner and refer you to a follow-up service if necessary for ongoing support.

What are the benefits associated with participation?

The benefits of this study will be to explore the supports or lack of supports in place for nurses delivering care to individuals who engage in non-suicidal deliberate self-injury and present to the emergency department or within the adult acute inpatient setting. It is hoped that this research project will help identify barriers between service users who self-harm and the nurses who interact with them, and may lead to the development of a targeted educational package for division 1 nurses and enrolled nurses who work in emergency departments or mental health inpatient units. This study will add to the existing body of knowledge internationally and nationally as no study of this kind has been undertaken in Victoria and not with mental health educated nurses at all.

What will happen to the information I provide?

- Any information that you provide can be disclosed only if (1) It is to protect you or others from harm, (2) a court order is produced, or (3) you provide the researchers with written permission.
- The anonymous results will be disseminated in a thesis leading to a PhD, in conferences and in published peer reviewed papers. The anonymous data can only be accessed by the investigator and research supervisors. After five years the data will be destroyed. The data collected will be analysed and the results may be published in academic journals or conferences, and will not include any identifying personal information or potentially identify either you or your employing health service.

What are my rights as a participant?

- The right to withdraw from participation at any time up until data has been analysed.
- The right to have any unprocessed data withdrawn and destroyed, provided it can be reliable identified, and provided that doing so does not increase the risk for the participant.
- The right to have any questions answered at any time.

Whom should I contact if I have any questions?

- If you have any questions about this study, please contact the researcher Ms Julie Vine or the study supervisors Associate Professors Lina Shahwan-Akl on lina.shahwan-akl@rmit.edu.au and/or Phillip Maude on philip.maude@rmit.edu.au at RMIT University or by telephoning (03) 9925 7447.

What other issues should I be aware of before deciding whether to participate?

- It is anticipated that participants complete the on-line survey in their own time so as not to disrupt clinical service delivery or to potentially contaminate results through discussion. Face-to-face interviews will be held with the researcher at a mutually agreed location out of clinical hours with the participant or via Skype or telephone.

Security of data:

- This project will use an external site to create, collect and analyse the data that is collected in a survey format. The site the researcher is using is Qualtrics. If you agree to participate in this survey, the responses you provide to the survey will be stored on a host server that is used by RMIT University. No personal information will be collected in the survey so none will be stored as data. Once the researcher has completed the data collection and analysis, the researcher will import the data collected to the RMIT University server where it will be stored securely for a period of five (5) yeas and will then be destroyed. The data on the Qualtrics host server will then be deleted and expunged.

Security of the web-site:

- Uses should be aware that the World Wide Web is an insecure public network that gives rise to the potential risk that a use's transactions are being viewed, intercepted or modified by third parties, or that data which the user downloads may contain computer viruses or other defects.

Yours sincerely,

Ms Julie Vine. BBSc., RPN, Cert.IV Ed. & Trning., MN, PhD (candidate).

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Associate Professor Lina Shahwan-Akl. BSc., MSc., PhD. (Supervisor).

Associate Professor Phillip Maude. RN. PhD. M (Res)., BHSc., GDMHN. GD Addic., FACMHN. (Supervisor)

Any complaints about your participation in this project may be directed to the Ethics Officer, RMIT Human Research Ethics Committee, Research and Innovation, RMIT University, GPO Box 2476V, Melbourne, 3001. The telephone number is (03) 9925 2251.

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Appendix C

Prescribed Consent Form for Persons Participating In Research Projects Involving Interviews, Questionnaires or Disclosure of Personal Information

Portfolio:	Science, Engineering and Health Sciences
School of:	Health Sciences
Name of participant:	
Project Title:	Attitudes, knowledge and beliefs of nurses towards individuals who deliberately self-injure.
Name(s) of investigators:	
(1)	Ms Julie Vine (PhD Candidate)
(2)	A/Prof Lina Shahwan-Akl Phone: +61 3 99257443
(3)	A/Prof Phillip Maude Phone: +61 3 99257447

1.   I have received a statement explaining the interview/questionnaire involved in this project.

2.   I consent to participate in the above project, the particulars of which - including details of the interviews or questionnaires - have been explained to me.

3.   I authorise the investigator or his or her assistant to interview me or administer a questionnaire.

4.   I acknowledge that:
   (a)   Having read Plain Language Statement, I agree to the general purpose, methods and demands of the study.
   (b)   I have been informed that I am free to withdraw from the project at any time and to withdraw any unprocessed data previously supplied.
   (c)   The project is for the purpose of research and/or teaching. It may not be of direct benefit to me.
   (d)   The privacy of the personal information I provide will be safeguarded and only disclosed where I have consented to the disclosure or as required by law.
   (e)   The security of the research data is assured during and after completion of the study. The data collected during the study may be published, and a report of the project outcomes will be provided to the health services' who participated in the project. Any information which will identify me will not be used.

Participant's Consent

Participant: _____   Date: _____
                          (Signature)

Witness: _____   Date: _____
                          (Signature)

                          (Witness to signature)

Participants should be given a photocopy of this consent form after it has been signed.

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APPENDIX D
RESEARCH SURVEY

Please respond to the questions below by ticking one appropriate circle (√)

1. What is your gender? (Please √ one)
    ◯   Male   ◯   Female

2. What is your age? (Please √ one)

    ◯   ≤ 21
    ◯   22-39
    ◯   40-59
    ◯   60+

    ◯ Enrolled Nurse
    ◯ Division one nurse

4. Do you have a Mental Health Nursing qualification?
    If so what is it_____

5. What other nursing qualifications do you have?
    _____

6. What is your current position (please √ one)

    ○ General Nurse within an emergency department
    ○ Mental Health Nurse within the emergency department (not a triage nurse)
    ○ General Nurse within an adult acute inpatient unit
    ○ Mental Health Nurse within an adult acute mental health unit
    ○ Mental Health triage Nurse
    Other please indicate_____

7. How many years of mental health nursing experience do you have?

    _____.

8. How long have you worked as a nurse? (please √ one)

    ○ < Than one year
    ○ 1 – 3 years
    ○ 4 – 6 years
    ○ 7 – 10 years
    ○ > 10 years. Please specify the number of years _____

9. Are you employed in a public or private facility?

    ○ Public
    ○ Private

10. Are you employed in a Metropolitan or Rural service?

    ○ Victorian Metropolitan
    ○ Victorian Rural

Survey 43 Likert Items

Please indicate by marking the item that most resembles your response to the following:

	I believe, feel or know that….	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
		1	2	3	4
1	Individuals who self-injure are trying to get sympathy from others.	1	2	3	4
2	Individuals should be able to self-injure in a safe environment.[1]	1	2	3	4
3	Self-injuring individuals do not respond to care.	1	2	3	4
4	When individuals self-injure it is often to manipulate others.	1	2	3	4
5	Individuals who self-injure are typically trying to get even with someone.	1	2	3	4
6	A self-injuring individual is a complete waste of time.	1	2	3	4
7	Self-injuring is a serious moral wrongdoing.	1	2	3	4
8	There is no way of reducing self-injuring behaviours.	1	2	3	4
9	Individuals who self-injure lack solid religious convictions.	1	2	3	4
10	Self-injury may be a form of reassurance for the individual that they are really alive and human.[1]	1	2	3	4
11	Self-injuring individuals can learn new ways of coping.[1]	1	2	3	4
12	Acts of self-injury are an intense human communication about the individual's situation.[1]	1	2	3	4
13	A self-injuring individual is only trying to get attention.	1	2	3	4
14	Self-injuring individuals have only themselves to blame for their situation.	1	2	3	4
15	For some individuals, self-injury can be a way of releasing tension.[1]	1	2	3	4
16	Self-injuring individuals have a great need for acceptance and understanding.[1]	1	2	3	4
17	A self-injuring individual deserves the highest standards of care on every occasion.[1]	1	2	3	4
18	I can really help self-injuring individuals.[1]	1	2	3	4
19	I listen fully to the self-injuring individual's problems and experiences.[1]	1	2	3	4
20	I am highly supportive towards individuals who self-injure.[1]	1	2	3	4
21	I find it rewarding to care for individuals who self-injure.[1]	1	2	3	4
22	I feel critical towards individuals who self-injure.	1	2	3	4
23	I demonstrate warmth and understanding towards self-injuring individuals in my care.[1]	1	2	3	4

	I believe, feel or know that….	STRONGLY AGREE	AGREE	DISAGREE	STRONGLY DISAGREE
24	I help self-injuring individuals feel positive about themselves.[1]	1	2	3	4
25	I blame myself when individuals in my care self-injure.	1	2	3	4
26	I acknowledge a self-injurer's individual qualities.[1]	1	2	3	4
27	I feel concern for individuals who self-injure.[1]	1	2	3	4
28	I would feel ashamed if a member of my family engaged in self-injury.	1	2	3	4
29	Individuals who self-injure are in desperate need for help.[1]	1	2	3	4
30	Providing information about community support groups to individuals who self-injure is a good idea.[1]	1	2	3	4
31	Ongoing education and training would be useful in helping me deal appropriately with self-injuring individuals.[1]	1	2	3	4
32	Knowledge of referral sources is important when dealing with self-injuring individuals.[1]	1	2	3	4
33	Risk assessment is an important tool for me to have.[1]	1	2	3	4
34	Self-injuring individuals are a victim of some other social problems.[1]	1	2	3	4
35	Individuals who self-injure have been hurt and damaged in the past.[1]	1	2	3	4
36	I have the appropriate knowledge and communication skills to help individuals who self-injure.[1]	1	2	3	4
37	I deal effectively with self-injuring individuals.[1]	1	2	3	4
38	I often feel helpless in dealing with the problems of self-injuring individuals.	1	2	3	4
39	Self-injuring individuals just clog up the system.	1	2	3	4
40	Self-injuring individuals are just using ineffective coping mechanisms.	1	2	3	4
41	Overall, I am satisfied with the control I have in dealing with deliberate self-injury in my unit.[1]	1	2	3	4
42	Dealing with self-injury is a waste of the health professional's time.	1	2	3	4
43	I feel that individuals who self-injure are treated less seriously by medical and nursing staff than individuals with medical problems.	1	2	3	4

Face to Face Interview Invitation

I would really appreciate it if you accept to be interviewed face to face in order to obtain an in-depth perspective into the understanding of self-injury.

Please contact Ms Julie Vine via e-mail if you would like to be included in this interview.

Thank you for your participation in this research project

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Appendix E

Telephone Interview Questions

Part One:

- What is your understanding of self-injury?
- In what way do you think individuals self-injure?
- Do you think that self-injury has many meanings?
- Do you feel any pressure from other nurses in your area to treat an individual who presents with self-injury in a certain way?
- What is the culture in your workplace towards self-injury? Why do you think this is so?
- Do you think you receive enough education about how to talk to and manage an individual who self-injures?
- Do you think there is enough support for you in relation to dealing with a self-injuring individual?
- Do you value the role of the mental health triage nurse working in the emergency department?

Part Two

- What are your thoughts on the meanings behind the act of self-injury?
- What are your thoughts that self-injury is a way of communicating distress?
- Do you individuals who self-injure should be seen as an acute presentation to the ED?

Part Three

➢ What are your thoughts about searches for dangerous items on admission and if so, throughout admission if you thought the individual was secreting sharps?

➢ What do you know about risk factors for individuals who self-injure compared with the non-self-injuring population for completed suicide?

➢ What do you know about 'no self-harm' contracts (and should such a contract be made with a person who self-injuries)?

➢ What do you know about the usefulness of drafting 'contracts' with service users who self-injure?

➢ What are your thoughts if the individual continues to self-injure whilst in your service? (Do you think she should be discharged for 'violating' unit safety conditions?)

➢ What do you know about the incidence of repeated self-injury in individuals who present with self-injuring behaviours?

➢ What are your thoughts on 'specialling' or on very close visual observations with self-injurers until they feel safe?

➢ What are your thoughts on whether self-injury is a major mental illness?

Part Four

➢ What do you know about risk for completed suicide within the following year and also within the following five years after an individual self-injures?

➢ What do you understand to be gender related risk factors for further self-injury?

➢ What do you understand to be gender related risk factors for completed suicide?

➢ In what way would your risk assessment on an individual take into consideration any social   risk factors?

➢ In what way would your assessment differ, if any, if Colin came from an indigenous background?

(Other questions may arise from the results of the survey that might be further explored in this interview.)